```
                LIST 4;
 6                  LNON;
 7                  TITLE ' SAM 68K MONITOR VERSION 2.3';
 8                  MONVER: EQU.L 'V2.3';
 9
10
11
12
13
14                  /*****************************************************************
15                  *      MONITOR-PROGRAMM FUER SAM 68K VERSION 2.3 13/05/85       *
16                  *                                                               *
17                  *                      COPYRIGHT 1985                           *
18                  *                          BY                                   *
19                  *                KWS COMPUTERSYSTEME GmbH                       *
20                  *                      ETTLINGEN                                *
21                  *                      W.GERMANY                                *
22                  *****************************************************************/
23
24
25
26
27
28
29
30
31                  PAGE 60;
```

```
                        !   RAM USED BY MONITOR
                        !   EDITOR
                        !   ASSEMBLER
                        !   MDCR
                        !   VIDEO


                                BASE @$500-8; ! VIDEOTREIBER VARIABLEN
4F8                     VARIABLES: DS.B 8;

                                BASE @$500;

                        MDCRBUFFER:
500                             DS.B $44; ! $500-$543 USED BY MDCR
544                     STEPFLG: DS.W 1;! <>0: SINGLE STEP
546                     IOFLAG:  DS.L 1;! IS USED FOR IN OUT 00010001 STANDART
54A                     LASTIO:  DS.L 1;! HERE IS THE LAST I/O CONFIGURATION
54E                     SERRTEJ: DS.L 1;! THIS IS END OF AUTOVEKTOR3-SEVICER.
552                             DS.L 1;
556                     INTINPUT:DS.B 1;! HERE IS LAST INPUT CHARACTER FROM ACIA1
557                             DS.B 1;! TO CHAR.
558                     REGFLAG: DS.L 1;
55C                     REGS:    DS.L 15;
598                     SSTP:    DS.L 1;
59C                     USTP:    DS.L 1;! USER STACKPOINTER
5A0                             DS.W 1;
5A2                     STRG:    DS.W 1;! STATUSREGISTER
5A4                     PCRG:    DS.L 1;! PROGRAM-COUNTER
5A8                     BPRG:    DS.L 8;! BREAKPOINT LIST
5C8                             DS.L 8;! SAVED OPCODES
5E8                     EWORKEND:DS.L 1;! EDITOR WORK BUFFER END
5EC                     ENDKENNU:DS.W 1;! END OF FILE KENNUNG TO BE SEND (STAND.04)
5EE                     USEROUT: DS.W 1;! HERE STANDS OPCO JMP
5F0                             DS.L 1;! AND HERE THE VECTOR TO JUMP
5F4                     USERIN:  DS.W 1;! HERE OPCO JMP
5F6                             DS.L 1;! AND THE VECTOR
5FA                     TERMTAB: DS.L 1;! POINTER TO SCREEN-EDI TABEL



                        !* POINTER  ASSEMBLER WORKSPACE
5FE                     ASSWBEG: DS.L 1;! START OF ASSEBLER WORK
602                     ASSWEND: DS.L 1;! END OF ASSEMBLER WORK

                        !* PATCH TO ASSEMBLER *

606                     XINITS: DS.L 1;
60A                     XGETAN: DS.L 1;
60E                     XGETLI: DS.L 1;
612                     XOUTOB: DS.L 1;
616                     XMOVEO: DS.L 1;
```

```
 89                     !* WORK SPACE OF LINE-EDITOR
 90
 91   61A               POINTACT:  DS.L 1;! ACT. LINE-POINTER
 92   61E               ENDKENN:   DS.W 1;
 93   620               COMBUFF:   DS.W 45;!MAX. 90 BYTES
 94   67A               COMEND:    DS.W 1;! COMMANDLINE BUFFER EDI + MONITOR
 95   67C               DUMMY1:    DS.W 1;
 96   67E               BUFFER:    DS.W 1;! START OF EDITOR BUFFER (-->EWORKEND)
 97
 98
 99
100                     !        AND NOW SOME EQUATES
101
102                     VIDEORAMN:  EQU @$38000;    ! START OF NORMAL V.-RAM
103                     VIDEORAMV:  EQU @$F18000;   ! ALTERNATE VIDEO RAM
104                     VIDEORAM2:  EQU @$78000;    ! ALTERNATE VIDEO +256 KB
105                     VIDEORAM5:  EQU @$B8000;    ! ALTERNATE VIDEO +512 KB
106                     ASSEMBLE:   EQU @$00104EB0;
107                     EDITOR:     EQU @$00107400;
108                     DEFASSB:    EQU $4000;
109                     DEFASSE:    EQU $7FFE;
110                     ACIA1CO:    EQU @$FFFF8C05; /* CHANNEL A CONTROL */
111                     ACIA1DA:    EQU @$FFFF8C01; /* CHANNEL A DATA */
112                     ACIA2CO:    EQU @$FFFF8C07; /* CHANNEL B CONTROL */
113                     ACIA2DA:    EQU @$FFFF8C03; /* CHANNEL B DATA */
114                     VIABASEMDCR:EQU  $FFFF8803;
115                     VIAPBDAT:   EQU @$FFFF8801;
116                     VIAPBDIR:   EQU @$FFFF8805;
117                     VIAPPCR:    EQU @$FFFF8819;
118                     CRTADR:     EQU @$FFFF8A01;
119                     CRTREG:     EQU @$FFFF8A03;
120                     PIADRA:     EQU @$FFFF8901;
121                     PIACRA:     EQU @$FFFF8903;
122                     PIADRB:     EQU @$FFFF8905;
123                     PIACRB:     EQU @$FFFF8907;
124                     TRACEVCT:   EQU @$24;
125                     BRKVCT:     EQU @$B8;! TRAP 14 IS BREAKPOINT HANDLER
126                     TRAP0VECTOR:EQU @$80;! END OF PROGRAM WITH REG.-DUMP
127                     TRAP1VECTOR:EQU @$84;
128                     BUSERRORV:  EQU @$8;
129                     TRAPIO:     EQU @$8C;! TRAP 15 IS FOR I/O
130                     AUTOV3:     EQU @$6C;! AUTOVECTOR LEVEL 3 FOR ACIA1 INPUT
131                     MONST:      EQU $4E0;! MONITOR STACK (MAX 1/4 KB)
132                     U6STACK:    EQU $400;! DEFAULT USERSTACK (! IN VECTORTABEL !)
133                     STANDIO:    EQU $10001;!STANDARD IS CHANAL #0 (ACIA1)
134                     ENDSTAN:    EQU $0404;! STANDARD END OF FILE
135                     DEFWORK:    EQU $37FF;! DEFAULT EDITOR WORKEND (LINE-EDI)
136                     OPCODJMP:   EQU $4EF9;! OPCODE  JUMP
137
138
139
140                     ! FIRST BYTES INEPROM:
141
142
143
144                             ORG $FE0000;
145
```

```
146
147 FE0000    00000400                DC.L $400;          !STACK
148 FE0004    00FE0038                DC.L #STARTNEU;     !POWER ON STARTVECTOR
149
150
151                          !  JUMPTABEL OF MONITOR
152
153
154
155 FE0008    6000068E      XINCH:    BRA.W INCH;         ! INPUT ONE CHAR. IN D0.B
156 FE000C    60000632      XOUTCH:   BRA.W OUTCH;        ! OUTPUT ONE CHAR. IN D0.B
157 FE0010    00000546      XIOFLAG:  DC.L  #IOFLAG;      ! POINTER TO IOFLAG IN RAM
158 FE0014    600009E4      XPCRLF:   BRA.W PCRLF;        ! PRINT CARRIAGE-RETURN+LINEFEED (+6*NULL)
159 FE0018    6000006C      XWARM:    BRA.W WARMST;       ! BACK TO MONITOR
160 FE001C    60000036      XCOLD:    BRA.W COLDSTRT;     ! TO MONITOR AT COLDENTRY
161 FE0020    6000052C      XPDATA:   BRA.W PDATA;        ! IS TO LIST FROM (A5) TILL $04 COMES UP
162 FE0024    600000A0      XMLOOP:   BRA.W MLOOP;        ! DIRECT RETURN IN MLOOP
163 FE0028    600010AE      XSAVE:    BRA.W SAVEMOSE;
164 FE002C    60000DB2      XLOAD:.   BRA.W MOLOADS;
165 FE0030    00000556      XINTINP:  DC.L  #INTINPUT;  ! EQ. IF NO INPUT ELSE =ASCII.B
166 FE0034    60000166      XGETSYSC: BRA.W GETSYSC;    ! SYSTEM EQUATES AT (A0) ...
167
168
169                          STARTNEU:
170 FE0038    4E71                    NOP; NOP; NOP; NOP; NOP; NOP;
170 FE003A    4E71
170 FE003C    4E71
170 FE003E    4E71
170 FE0040    4E71
170 FE0042    4E71
171 FE0044    4E71                    NOP; NOP; NOP; NOP; NOP; NOP;
171 FE0046    4E71
171 FE0048    4E71
171 FE004A    4E71
171 FE004C    4E71
171 FE004E    4E71
172
173 FE0050    60000096                BRA.W INIDRAM;      ! RETURN ON BUSERROR TO COLDSTRT
174
175                          COLDSTRT:
176 FE0054    6100016C                BSR    SETVEKTORS;
177 FE0058    610000E4                BSR    INIACIAS;
178 FE005C    610000AE                BSR    INIPIAS;
179 FE0060    61001FCE                BSR    INITCRT;     ! HINTEN BEI VIDEOTREIBERN;
180 FE0064    61000994                BSR    PCRLF;
181 FE0068    4BFA1307                LEA.L  TRES,A5;     ! MESSAGE
182 FE006C    610004E0                BSR    PDATA;
183 FE0070    2E7C000004E0            MOVE.L MONST,A7;
184 FE0076    46FC2200                MOVE.W $2200,SR;    ! SET STATUS REGISTER
185
186                          ! VORLAUEFIG AUTOBOOT VERSUCH
187 FE007A    083800028901            BTST.B 2,PIADRA;
188 FE0080    6604                    BNE    WARMST;
189 FE0082    60001564                BRA.W  STARTBOOT;
190
191                          WARMST:
192 FE0086    21FC00FE0324            MOVE.L #TRACEIN,TRACEVCT;! SET TRACE VECTOR
```

```
          0024
193 FE008E  21FC00FE05CE          MOVE.L #TRAP15HA,TRAPIO; ! SET TRAPI/O-HANDLER
          00BC
194 FE0096  21FC00FE02C2          MOVE.L #TRAP1HA,TRAP1VECTOR;
          0084
195 FE009E  2E7C000004E0          MOVE.L MONST,A7;
196 FE00A4  21FC00FE0382          MOVE.L #BREAKIN,BRKVCT;  ! SET BREAK VECTOR
          00B8
197 FE00AC  21FC00001800          MOVE.L $1800,PCRG;       ! DEFAULT PC
          05A4
198 FE00B4  31FC2200005A2         MOVE.W $2200,STRG;       ! DEFAULT SR
199 FE00BA  21FC00000400          MOVE.L UGSTACK,SSTP;     ! DEFAULT SS
          0598
200 FE00C2  46FC2200              MOVE.W $2200,SR;         ! SET STATUS REGISTER
201
202 FE00C6  61000932      MLOOP:  BSR PCRLF;
203 FE00CA  2E7C000004E0          MOVE.L MONST,A7;
204 FE00D0  702A          MLOOP1: MOVEQ.L '*',D0;
205 FE00D2  6100056C              BSR OUTCH;               ! PRINT PROMPT
206 FE00D6  61000418              BSR INLINE;              ! GET LINE
207 FE00DA  670001EC              BEQ.W DECODE;            ! DECODE NO ERROR
208 FE00DE  6100091A              BSR PCRLF;
209 FE00E2  61000460      MLOOP3: BSR WHAT;                ! PRINT "WHAT?"
210 FE00E6  60DE                  BRA MLOOP;               ! IF ERROR
211
212
213
214
215
216 FE00E8  43FA000C      INIDRAM: LEA.L M1,A1;
217 FE00EC  21C90008              MOVE.L A1,BUSERRORV;
218 FE00F0  91C8                  SUB.L A0,A0;
219 FE00F2  20D0          L0:     MOVE.L (A0),(A0)+;
220 FE00F4  60FC                  BRA L0;
221 FE00F6  43FAFF5C      M1:     LEA.L COLDSTRT,A1;
222 FE00FA  21C90008              MOVE.L A1,BUSERRORV;
223 FE00FE  307C000A              MOVE.W 10,A0;
224 FE0102  1010          M2:     MOVE.B (A0),D0;
225 FE0104  D1FC00040000          ADD.L $40000,A0;
226 FE010A  60F6                  BRA M2;
227
228
229                       !  INITIALIZE THE PIA REGISTERS
230
231                       INIPIAS:
232 FE010C  11FC00008903          MOVE.B 0,PIACRA;   ! CLEAR DDRA ACCESS BIT
233 FE0112  11FC00008907          MOVE.B 0,PIACRB;
234 FE0118  11FC00038901          MOVE.B $3,PIADRA;  ! ONLY PA0+1 ARE OUTPUTS
235 FE011E  11FC00008905          MOVE.B 0,PIADRB;   ! PB ALL INPUTS
236 FE0124  11FC00348903          MOVE.B $34,PIACRA; ! SET DATA ACCESS BIT, FDC INT DISABLED
237                                                  ! WHEN CA2 LOW
238 FE012A  11FC00058907          MOVE.B 5,PIACRB;   ! INTERRUPT ENABLED FUER TAST
239 FE0130  11FC00038901          MOVE.B 3,PIADRA;   ! PA0+1 SHOULD BE HIGH
240
241 FE0136  11FC000E8819          MOVE.B $E,VIAPPCR; ! INIT BELL
242 FE013C  4E75                  RTS;
243
```

```
244
245
246
247                             !  INITIALIZE THE MPSC
248
249 FE013E    48E700C0      INIACIAS: MOVEM.L A0-A1,-(A7);
250 FE0142    41F88C05              LEA.L ACIA1CO,A0;
251 FE0146    43FA0028              LEA.L CHAINITAB,A1;
252 FE014A    0C1100FF      INILOOP:  CMPI.B $FF,(A1);
253 FE014E    6706                  BEQ INICHB;
254 FE0150    1099                  MOVE.B (A1)+,(A0); ! WRITE REGISTER POINTER
255 FE0152    1099                  MOVE.B (A1)+,(A0); ! WRITE REGISTER
256 FE0154    60F4                  BRA INILOOP;
257 FE0156    41F88C07      INICHB:   LEA.L ACIA2CO,A0;
258 FE015A    43FA002A              LEA.L CHBINITAB,A1;
259 FE015E    0C1100FF      INILOOPB: CMPI.B $FF,(A1);
260 FE0162    6706                  BEQ INIRET;
261 FE0164    1099                  MOVE.B (A1)+,(A0);
262 FE0166    1099                  MOVE.B (A1)+,(A0);
263 FE0168    60F4                  BRA INILOOPB;
264 FE016A    4CDF0300      INIRET:   MOVEM.L (A7)+,A0-A1;
265 FE016E    4E75                  RTS;
266
267
268
269                             CHAINITAB:
270 FE0170    0018          DC.W $0018; ! MASTER RESET
271 FE0172    0444          DC.W $0444; ! CLK/16, 1 STOP, NO PARITY
272 FE0174    05EA          DC.W $05EA; ! TX ENABLE, 8 BITS, RTS
273 FE0176    03E1          DC.W $03E1; ! RX ENABLE, 8 BITS, AUTO ENABLE
274 FE0178    0204          DC.W $0204; ! NON VECTORED, NO DMA
275 FE017A    0118          DC.W $0118; ! RX INT ENABLED
276 FE017C    0600          DC.W $0600; ! SYNC BYTES NOT NEEDED HERE
277 FE017E    0700          DC.W $0700;
278 FE0180    0030          DC.W $0030; ! ERROR RESET
279 FE0182    00C0          DC.W $00C0; ! TX UNDERRUN DISCARDED
280 FE0184    FFFF          DC.W $FFFF; ! END OF TABLE
281
282                             CHBINITAB:
283 FE0186    0018          DC.W $0018;
284 FE0188    0444          DC.W $0444;
285 FE018A    0568          DC.W $0568; ! RTS HIGH
286 FE018C    03E1          DC.W $03E1;
287 FE018E    0200          DC.W $0200; ! INTERRUPT VECTOR, USED BY SOFTWARE ONLY
288 FE0190    0104          DC.W $0104; ! INTERRUPTS DISABLED, VECTOR AFFECTED
289 FE0192    0600          DC.W $0600;
290 FE0194    0700          DC.W $0700;
291 FE0196    0030          DC.W $0030;
292 FE0198    00C0          DC.W $00C0;
293 FE019A    FFFF          DC.W $FFFF;
294
295 FE019C    41FA0004      GETSYSC: LEA.L  SYSCONST,A0;
296 FE01A0    4E75                  RTS;
297
298 FE01A2    56322E33      SYSCONST:DC.L   #MONVER;
299 FE01A6    00FE2568              DC.L   #CHARS;
300 FE01AA    000004F8              DC.L   #VARIABLES;
```

```
301 FE01AE    0200                DC.W   512;
302 FE01B0    0100                DC.W   256;
303 FE01B2    FFFFFFFF            DC.L   -1;
304 FE01B6    FFFFFFFF            DC.L   -1;
305 FE01BA    FFFFFFFF            DC.L   -1;
306 FE01BE    FFFFFFFF            DC.L   -1;
307
308
309                           SETVEKTORS:
310 FE01C2    203C00FE129C        MOVE.L #TRAPERR,D0;
311 FE01C8    93C9                SUBA.L A1,A1;        ! CLEAR A1
312 FE01CA    323C00FF            MOVE.W $FF,D1;       ! 256 VECTORS
313 FE01CE    22C0          COLDST1: MOVE.L D0,(A1)+;
314 FE01D0    51C9FFFC            DBF D1,COLDST1;
315 FE01D4    21FC00FE130A        MOVE.L #BUSERR,a$8;
              0008
316 FE01DC    21FC00FE12DA        MOVE.L #ADDRESSE,a$C;
              000C
317 FE01E4    21FC00FE12EA        MOVE.L #ILLINSTR,a$10;
              0010
318 FE01EC    21FC00FE12EA        MOVE.L #ILLINSTR,a$28;
              0028
319 FE01F4    21FC00FE12EA        MOVE.L #ILLINSTR,a$2C;
              002C
320 FE01FC    21FC00FE12F2        MOVE.L #ZERODIVE,a$14;
              0014
321 FE0204    21FC00FE12FA        MOVE.L #OUTOFRAN,a$18;
              0018
322 FE020C    21FC00FE1302        MOVE.L #PRIVILEG,a$20;
              0020
323 FE0214    21FC00FE131A        MOVE.L #NMIABO,a$7C;   ! PANIKBUTTOM
              007C
324 FE021C    21FC00FE18D0        MOVE.L #INTSERVICE,a$70; ! FLOPPY INTERRUPT
              0070
325 FE0224    21FC00FE07C4        MOVE.L #SERVICE3,AUTOV3;
              006C
326 FE022C    21FC00FE0324        MOVE.L #TRACEIN,TRAP0VECTOR;
              0080
327 FE0234    21FC00FE0324        MOVE.L #TRACEIN,TRACEVCT;! SET TRACE VECTOR
              0024
328 FE023C    21FC00FE05CE        MOVE.L #TRAP15HA,TRAPIO; ! SET TRAPI/O-HANDLER
              00BC
329 FE0244    21FC00FE0382        MOVE.L #BREAKIN,BRKVCT;  ! SET BREAK VECTOR
              0088
330
331 FE024C    31FC00010544        MOVE.W 1,STEPFLG;
332 FE0252    21FCFFFFFFFF        MOVE.L -1,REGFLAG;
              0558
333 FE025A    21FC00010001        MOVE.L STANDIO,IOFLAG;! SET IN OUT TO ACIA1
              0546
334 FE0262    31FC040405EC        MOVE.W ENDSTAN,ENDKENNU;
335 FE0268    21FC00010001        MOVE.L STANDIO,LASTIO;
              054A
336 FE0270    43F805EE            LEA.L  USEROUT,A1;
337 FE0274    32FC4EF9            MOVE.W OPCOJMP,(A1)+;
338 FE0278    22FC00FE06C8        MOVE.L #OUTA1,(A1)+;
339 FE027E    32FC4EF9            MOVE.W OPCOJMP,(A1)+;
```

```
340 FE0282    22BC00FE073C          MOVE.L $INA1,(A1); ! DAMIT IST USERI/O AUF ACIA1
341 FE0288    21FC4E734E73          MOVE.L $4E734E73,SERRTEJ;! LOCATED IN RAM 8 BYTES LONG
              054E
342 FE0290    42780556              CLR.W  INTINPUT;
343 FE0294    21FC0000037FF         MOVE.L DEFWORK,EWORKEND;! EDITOR BUFFER DEFAULT
              05E8
344 FE029C    21FC00004000          MOVE.L DEFASSB,ASSWBEG;
              05FE
345 FE02A4    21FC00007FFE          MOVE.L DEFASSE,ASSWEND;
              0602
346 FE02AC    21FC00010201C         MOVE.L $10201C,XOUTOB;
              0612
347 FE02B4    21FC0010734A          MOVE.L $10734A,XMOVEO;
              0616
348 FE02BC    61000144              BSR    CLEARRG;          ! CLEARS REG AND BP'S
349 FE02C0    4E75                  RTS;
350
351 FE02C2    41FA12D8      TRAP1HA: LEA.L  SUSYSFRUNGTAB,A0;
352 FE02C6    4E73                  . RTE;
353
354
355                         !**  DECODE A COMMAND  **
356
357 FE02C8    61000730      DECODE:  BSR PCRLF;
358 FE02CC    2A4C          DECODE0: MOVEA.L A4,A5;      ! CURRENT POINTER
359 FE02CE    41FA120C               LEA.L COMTAB,A0;    ! START OF COMMANDS
360 FE02D2    3210                   MOVE.W (A5)+,D1;    ! GET FIRST 2 CHAR.
361 FE02D4    3018          DECODE1: MOVE.W (A0)+,D0;    ! GET COMMAND
362 FE02D6    B07CFFFF               CMP.W -1,D0;        ! REACHED END OF TAB?
363 FE02DA    6700FE06               BEQ.W MLOOP3;
364 FE02DE    2258                   MOVEA.L (A0)+,A1;   ! GET ADDRESS OF COMMAND
365 FE02E0    B03C0040               CMP.B '@',D0;       ! MUST BE NUMBER?
366 FE02E4    660E                   BNE DECODE3;        ! NO: OK
367 FE02E6    1001                   MOVE.B D1,D0;       ! TRANSFER CHAR.
368 FE02E8    B03C0030               CMP.B '0',D0;       ! LESS THAN ZERO?
369 FE02EC    6BE6                   BMI DECODE1;        ! YES: NOT HIT
370 FE02EE    B03C0038               CMP.B '8',D0;       ! GREATER 7?
371 FE02F2    6AE0                   BPL.S DECODE1;      ! YES: NOT HIT
372 FE02F4    B240          DECODE3: CMP.W D0,D1;        ! HIT COMMAND?
373 FE02F6    66DC                   BNE.S DECODE1;
374 FE02F8    4E91                   JSR (A1);
375 FE02FA    6600FDE6               BNE.W MLOOP3;       ! WAS ERROR
376 FE02FE    6000FDC6               BRA.W MLOOP;
377
378                         !**  REMOVE BLANKS  **
379
380 FE0302    101D          REMBLANK: MOVE.B (A5)+,D0;   ! GET CHARACTER
381 FE0304    B03C0020                CMP.B $20,D0;       ! IS BLANK?
382 FE0308    67F8                    BEQ.S REMBLANK;     ! YES: NEXT CHARACTER
383 FE030A    538D                    SUBQ.L 1,A5;        ! ADJUST POINTER
384 FE030C    4E75                    RTS;
385
386                         !**  STEP COMMAND  **
387
388 FE030E    31FC00010544  STEP:     MOVE.W 1,STEPFLG;   ! SINGLE STEP
389 FE0314    6004                    BRA.S TRACE1;
390
```

```
391                     !** TRACE - COMMAND **
392
393 FE0316  42780544    TRACE:   CLR.W STEPFLG;     ! NO SINGLE STEP
394 FE031A  08F8000705A2 TRACE1:  BSET.B 7,STR6;     ! TRACE ON
395 FE0320  600001A6             BRA.W GOCOM1;
396
397                     !** TRACE AND SINGLE-STEP **
398                     !** EXCEPTION PROCESSING **
399
400 FE0324  48F87FFF055C TRACEIN: MOVEM.L D0-D7/A0-A6,REGS;! SAVE USER REGS
401 FE032A  4E68                  MOVE.L USP,A0;
402 FE032C  21C8059C              MOVE.L A0,USTP;   ! SAVE USER-STACKPOINTER
403 FE0330  31DF05A2              MOVE.W (A7)+,STR6;! AND STATUS-REG
404 FE0334  21DF05A4              MOVE.L (A7)+,PCR6;! AND PROGRAM-COUNTER
405 FE0338  21CF0598              MOVE.L A7,SSTP;   ! AND STACKPOINTER
406 FE033C  2E7C000004E0          MOVE.L MONST,A7;  ! RESTORE MONITOR-STACK
407 FE0342  10380557              MOVE.B INTINPUT+1,D0;
408 FE0346  610002F8              BSR OUTCH;        ! MAY SET TO CLEAR SCREEN
409 FE034A  610006AE              BSR PCRLF;
410 FE034E  00B800040000          ORI.L $40000,REGFLAG;! SHOW PC ALWAYS
            0558
411 FE0356  61000206              BSR OUTREG;         ! SHOW REGISTERS
412 FE035A  4A780544              TST.W STEPFLG;      ! SINGLE STEP?
413 FE035E  6600FD66              BNE.W MLOOP;          ! YES: BACK TO MONITOR
414 FE0362  4A380556              TST.B INTINPUT;
415 FE0366  6608                  BNE.S TRACEIN2;
416 FE0368  61000690    TRACEIN4: BSR PCRLF;
417 FE036C  6000015A              BRA.W GOCOM1;       ! IF TRACE IS ON
418 FE0370  61000326    TRACEIN2: BSR INCH;
419 FE0374  61000322              BSR INCH;
420 FE0378  B03C0000              CMP.B $00,D0;     ! IS BLANK
421 FE037C  66EA                  BNE.S TRACEIN4;
422 FE037E  6000FD46              BRA.W MLOOP;
423
424                     !** BREAKPOINT COMES HERE IN **
425
426 FE0382  48F87FFF055C BREAKIN: MOVEM.L D0-D7/A0-A6,REGS;! SAVE USER REGS
427 FE0388  4E68                  MOVE.L USP,A0;
428 FE038A  21C8059C              MOVE.L A0,USTP;   ! SAVE USER-STACKPOINTER
429 FE038E  31DF05A2              MOVE.W (A7)+,STR6;! AND STATUS-REG
430 FE0392  21DF05A4              MOVE.L (A7)+,PCR6;  ! AND PROGRAM-COUNTER
431 FE0396  21CF0598              MOVE.L A7,SSTP;     ! AND STACKPOINTER
432 FE039A  2E7C000004E0          MOVE.L MONST,A7;    ! RESTORE MONITOR-STACK
433 FE03A0  61000658              BSR PCRLF;
434 FE03A4  55B805A4              SUBQ.L 2,PCR6;      ! ADJUST PC
435 FE03A8  4BFA0FBC              LEA.L TBRP,A5;
436 FE03AC  610001A0              BSR PDATA;          ! PRINT MESSAGE
437 FE03B0  203805A4              MOVE.L PCR6,D0;
438 FE03B4  7208                  MOVEQ.L 8,D1;
439 FE03B6  6100060C              BSR PRTNIB;         ! PRINT BREAK-ADDRESS
440 FE03BA  61000006              BSR BREAKIN3;
441 FE03BE  6000FD06              BRA.W MLOOP;
442
443
444                     !** REMOVES BREAKPOINTS FROM RAM **
445 FE03C2  207C000005A8 BREAKIN3: MOVEA.L #BPR6,A0; ! POINT TO FIRST BP
446 FE03C8  7407                  MOVEQ.L 7,D2;    ! 8 BP'S
```

```
447 FE03CA   2618          BREAKIN1: MOVE.L (A0)+,D3;  ! GET ADDRESS OF BP
448 FE03CC   6706                    BEQ.S BREAKIN2;
449 FE03CE   2443                    MOVEA.L D3,A2;
450 FE03D0   24A8001C                MOVE.L 28(A0),(A2);! RESTORE OPCODE
451 FE03D4   51CAFFF4      BREAKIN2: DBF D2,BREAKIN1;  ! AGAIN TILL END
452 FE03D8   4E75                    RTS;
453
454
455 FE03DA   6100FF26      CLEARBP:  BSR REMBLANK;     ! REMOVE BLANKS
456 FE03DE   B03C000D                CMP.B $0D,D0;     ! COMES <CR>?
457 FE03E2   6614                    BNE.S CLEARBP3;   ! NO: ERROR
458 FE03E4   207C000005A8            MOVEA.L #BPRG,A0; ! POINT TO FIRST BP
459 FE03EA   4280                    CLR.L D0;
460 FE03EC   7207                    MOVEQ.L 7,D1;     ! 8 BP'S
461 FE03EE   20C0          CLEARBP1: MOVE.L D0,(A0)+;  ! CLEAR IT
462 FE03F0   51C9FFFC                DBF D1,CLEARBP1;
463 FE03F4   003C0004                ORI.B 4,CCR;      ! NO ERROR
464 FE03F8   4E75          CLEARBP3: RTS;
465
466                       !** SET BREAKPOINTS **
467
468 FE03FA   D03C000B      BREAKP:   ADD.B $B,D0;
469 FE03FE   6000074C                BRA.W AOREG;
470
471                       !** CLEAR REGISTERS AND BREAKPOINTS **
472
473 FE0402   721A          CLEARRG:  MOVEQ.L 26,D1;    ! 27 REGISTERS
474 FE0404   207C0000055C            MOVEA.L #REGS,A0;
475 FE040A   4280                    CLR.L D0;
476 FE040C   20C0          CLEARRG1: MOVE.L D0,(A0)+;  ! CLEAR THEM
477 FE040E   51C9FFFC                DBF D1,CLEARRG1;
478 FE0412   4E75                    RTS;
479
480                       !** DISPLAY ALL BREAKPOINTS **
481
482 FE0414   6100FEEC      DISBP:    BSR REMBLANK;     ! REMOVE BLANKS
483 FE0418   B03C000D                CMP.B $0D,D0;     ! IS <CR>?
484 FE041C   661E                    BNE.S DISBP9;     ! NO ERROR
485 FE041E   48E7FFFE                MOVEM.L D0-D7/A0-A6,-(A7);
486 FE0422   4286                    CLR.L D6;
487 FE0424   4285                    CLR.L D5;
488 FE0426   2E3C000000FF            MOVE.L $FF,D7;
489 FE042C   207C000005A8            MOVEA.L #BPRG,A0;
490 FE0432   227C00FE1356            MOVEA.L #BPTAB,A1;
491 FE0438   60000138                BRA.W OUTREG1;      ! DISPLAY THEM/BACK TO MON
492 FE043C   4E75          DISBP9:   RTS;
493
494
495                       !** CALL - COMMAND **
496
497 FE043E   61000B78      CALLCOM:  BSR SEANEXT;
498 FE0442   538D                    SUBQ.L 1,A5;
499 FE0444   43FA0010                LEA.L CALLCOM1,A1;
500 FE0448   2078059C                MOVEA.L USTP,A0;
501 FE044C   2089                    MOVE.L A1,(A0);
502 FE044E   20780598                MOVEA.L SSTP,A0;
503 FE0452   2089                    MOVE.L A1,(A0);
```

```
504 FE0454    6018                BRA.S GOCOM;
505 FE0456    6100FF6A    CALLCOM1: BSR BREAKIN3;
506 FE045A    6000FC6A              BRA.W MLOOP;
507
508
509 FE045E    11FC000C0557 TDCOM:   MOVE.B 12,INTINPUT+1;
510 FE0464    9080                SUB D0,D0;
511 FE0466    4E75                RTS;
512
513 FE0468    42380557    TC:       CLR.B INTINPUT+1;
514 FE046C    4E75                RTS;
515
516                       !** GO - COMMAND **
517
518 FE046E    08B8000705A2 GOCOM:   BCLR.B 7,STRG;  ! ALWAYS TRACE OFF
519 FE0474    6100FE8C              BSR REMBLANK;
520 FE0478    0C15000D              CMPI.B $0D,(A5);
521 FE047C    670C                  BEQ.S GOCOM4;
522 FE047E    610008D2              BSR READHX;
523 FE0482    666A                  BNE.S GOCOMERR;
524 FE0484    4284                  CLR.L D4;
525 FE0486    21C005A4              MOVE.L D0,PCRG;
526 FE048A    323C4E4E    GOCOM4:   MOVE.W $4E4E,D1; ! TRAP #14 IS BREAK
527 FE048E    207C000005A8          MOVEA.L #BPRG,A0;! POINT TO FIRST BP
528 FE0494    7407                  MOVEQ.L 7,D2;    ! MAX. 8 BP'S
529 FE0496    4284                  CLR.L D4;
530
531 FE0498    2618        GOCOM2:   MOVE.L (A0)+,D3; ! GET BP
532 FE049A    670A                  BEQ.S GOCOM3;    ! BP=0: DO NOTHING
533 FE049C    5284                  ADDQ.L 1,D4;     ! BREAKPOINT COUNT
534 FE049E    2443                  MOVEA.L D3,A2;
535 FE04A0    2152001C              MOVE.L (A2),28(A0);! SAVE OPCODE
536 FE04A4    3481                  MOVE.W D1,(A2);    ! PUT BP INTO MEM
537 FE04A6    51CAFFF0    GOCOM3:   DBF D2,GOCOM2;     ! AGAIN TILL END
538
539 FE04AA    4A84                  TST D4;
540 FE04AC    672A                  BEQ.S GOCOM5;
541 FE04AE    6100054A              BSR PCRLF;
542 FE04B2    48FA0ED3              LEA.L MESSACT,A5;
543 FE04B6    61000096              BSR PDATA;
544 FE04BA    1004                  MOVE.B D4,D0;
545 FE04BC    D03C0030              ADD.B '0',D0;
546 FE04C0    6100017E              BSR OUTCH;
547 FE04C4    61000534              BSR PCRLF;
548 FE04C8    21FC00FE0324 GOCOM1:  MOVE.L #TRACEIN,TRACEVCT;! SET VECTOR
              0024
549 FE04D0    21FC00FE0382          MOVE.L #BREAKIN,BRKVCT;  ! SET BREAK-VECTOR
              0088
550 FE04D8    2078059C    GOCOM5:   MOVEA.L USTP,A0;
551 FE04DC    4E60                  MOVE.L A0,USP;          ! LOAD USER-STACKPOINTER
552 FE04DE    4CF8FFFF055C          MOVEM.L REGS,A0-A7/D0-D7;! LOAD REGISTERS
553 FE04E4    2F3805A4              MOVE.L PCRG,-(A7);      ! LOAD SR+PC
554 FE04E8    3F3805A2              MOVE.W STRG,-(A7);
555 FE04EC    4E73                  RTE;! GO AWAY
556
557 FE04EE    4E75        GOCOMERR: RTS;
558
```

```
                        !** GET A LINE TO LINEBUFFER.
                        !** A4: BEGIN OF LINE BUFFER
                        !** A6: COMBUFF-END
                        
FE04F0   49F80620       INLINE:   LEA.L COMBUFF,A4;   ! START OF BUFFER
FE04F4   4DF8067A                 LEA.L COMEND,A6;    ! END OF BUFFER
FE04F8   421C           CLBUFFER: CLR.B (A4)+;
FE04FA   BDCC                     CMP.L A4,A6;
FE04FC   66FA                     BNE CLBUFFER;
FE04FE   49F80620                 LEA.L COMBUFF,A4;
FE0502   2A4C           INLINE0:  MOVEA.L A4,A5;      ! CURRENT POINTER
FE0504   4280           INLINE1:  CLR.L D0;
FE0506   61000190                 BSR INCH;
FE050A   4A00                     TST.B D0;
FE050C   67F6                     BEQ.S INLINE1;
FE050E   B03C0008                 CMP.B $08,D0;       ! BACKSPACE?
FE0512   671C                     BEQ.S INLIDEL;
FE0514   B03C007F                 CMP.B $7F,D0;       ! DELETE?
FE0518   6716                     BEQ.S INLIDEL;
FE051A   1AC0                     MOVE.B D0,(A5)+;
FE051C   0C00000D                 CMPI.B $0D,D0;      ! END OF LINE?
FE0520   670C                     BEQ.S INLINE2;
FE0522   6100011C                 BSR OUTCH;          ! ECHO CHARACTER
FE0526   BBCE                     CMPA.L A6,A5;       ! END OF BUFFER?
FE0528   65DA                     BCS INLINE1;
FE052A   023C00FB                 ANDI.B $FB,CCR;     ! Z=0: REPORT ERROR
FE052E   4E75           INLINE2:  RTS;                ! Z=1: NO ERROR

FE0530   BBCC           INLIDEL:  CMPA.L A4,A5;       ! AT BEGIN OF BUFFER?
FE0532   67D0                     BEQ.S INLINE1;      ! INLINE1 DO NOTHING
FE0534   2F0D                     MOVE.L A5,-(A7);    ! SAVE POINTER
FE0536   48FA0E6E                 LEA.L TDEL,A5;
FE053A   61000012                 BSR PDATA;
FE053E   2A5F                     MOVEA.L (A7)+,A5;
FE0540   538D                     SUBQ.L 1,A5;
FE0542   60C0                     BRA INLINE1;

                        !** PRINT "WHAT?" **

FE0544   48FA0E59       WHAT:     LEA.L TWHAT,A5;
FE0548   61000004                 BSR PDATA;
FE054C   4E75                     RTS;


                        !** PRINT TEXT TILL $04 COMES UP **
                        !** (A5) POINTS TO FIRST CHAR.   **

FE054E   101D           PDATA:    MOVE.B (A5)+,D0;
FE0550   0C000004                 CMPI.B $04,D0;    ! REACHED END OF TEXT?
FE0554   6706                     BEQ.S PDATA1;
FE0556   610000E8                 BSR OUTCH;
FE055A   60F2                     BRA.S PDATA;      ! DO IT AGAIN
FE055C   4E75           PDATA1:   RTS;


                        !** OUTPUT REGISTERS ACCORDING REGFLAG **
```

```
616
617 FE055E    48E7FFFE      OUTREG:   MOVEM.L D0-D7/A0-A6,-(A7);
618 FE0562    4286                    CLR.L D6;       ! BIT POINTER REGFLAG
619 FE0564    4285                    CLR.L D5;       ! NUMBER IN LINE
620 FE0566    2E380558                MOVE.L REGFLAG,D7;
621 FE056A    41F8055C                LEA.L REGS,A0;
622 FE056E    43FA00C0                LEA.L REGTAB,A1;
623 FE0572    2418          OUTREG1:  MOVE.L (A0)+,D2;
624 FE0574    3019                    MOVE.W (A1)+,D0;
625 FE0576    0D07                    BTST.L D6,D7;
626 FE0578    6724                    BEQ.S OUTREG2;
627 FE057A    61000030                BSR OUTREG5;    ! PRINT REGISTERNAME
628 FE057E    7208                    MOVEQ.L 8,D1;
629 FE0580    2002                    MOVE.L D2,D0;
630 FE0582    61000440                BSR PRTNIB;
631 FE0586    5205                    ADDQ.B 1,D5;
632 FE0588    0C050004                CMPI.B 4,D5;
633 FE058C    670A                    BEQ.S OUTREG3;
634 FE058E    323C0004                MOVE.W 4,D1;
635 FE0592    61000492                BSR PBLANK;
636 FE0596    6006                    BRA.S OUTREG2;
637
638 FE0598    4285          OUTREG3:  CLR.L D5;
639 FE059A    6100045E                BSR PCRLF;
640 FE059E    5206          OUTREG2:  ADDQ.B 1,D6;
641 FE05A0    0C060013                CMPI.B 19,D6;
642 FE05A4    66CC                    BNE.S OUTREG1;
643 FE05A6    4CDF7FFF                MOVEM.L (A7)+,D0-D7/A0-A6;
644 FE05AA    4E75                    RTS;
645
646 FE05AC    61000092      OUTREG5:  BSR OUTCH;
647 FE05B0    E048                    LSR.W 8,D0;
648 FE05B2    6100008C                BSR OUTCH;
649 FE05B6    323C0001                MOVE.W 1,D1;
650 FE05BA    6100046A                BSR PBLANK;
651 FE05BE    703D                    MOVEQ.L '=',D0;
652 FE05C0    6100007E                BSR OUTCH;
653 FE05C4    323C0001                MOVE.W 1,D1;
654 FE05C8    6100045C                BSR PBLANK;
655 FE05CC    4E75                    RTS;
656
657                     !** TRAP 15 HANDLER (RESEVERD FOR I/O) **
658
659 FE05CE    206F0002      TRAP15HA: MOVEA.L 2(A7),A0; ! IN A0 IS USER PC
660 FE05D2    3018                    MOVE.W (A0)+,D0;  ! IN D0 HANDLER-NR.
661 FE05D4    2F480002                MOVE.L A0,2(A7);  ! PC IS NOW BEHIND HANDL.NR.
662
663 FE05D8    0C400001                CMPI.W 1,D0;
664 FE05DC    6606                    BNE.S TRAPIO2;
665 FE05DE    61000022      TRAPIO4:  BSR ACIA1INL;
666 FE05E2    601C                    BRA.S TRAPIOE;
667 FE05E4    0C400002      TRAPIO2:  CMPI.W 2,D0;
668 FE05E8    6606                    BNE.S TRAPIO3;
669 FE05EA    6100003C      TRAPIO5:  BSR ACIA1OUL;
670 FE05EE    6010                    BRA.S TRAPIOE;
671 FE05F0    0C400003      TRAPIO3:  CMPI.W 3,D0;
672 FE05F4    67E8                    BEQ.S TRAPIO4;  ! IS THE SAME AS TRAP FNC(1)
```

```
673 FE05F6    0C400004              CMPI.W 4,D0;
674 FE05FA    67EE                  BEQ.S TRAPIO5;  ! IS LIKE TRAP FNC(2)
675 FE05FC    60000C9E              BRA.W TRAPERR;    ! ONLY FNC (1,2,3,4)
676
677 FE0600    4E73          TRAPIOE:  RTE;            ! UND WEITER IM USERPROGAMM
678
679
680
681
682                         !** INPUT ONE LINE FROM ACIA 1 **
683
684                         !* A5/A6 IS START OF BUFFER
685
686 FE0602    48E7000C      ACIA1INL: MOVEM.L A4-A5,-(A7);
687 FE0606    284D                    MOVEA.L A5,A4;
688 FE0608    2C4D                    MOVE.L  A5,A6;
689 FE060A    0DFC00000059            ADDA.L 89,A6; ! ERST MAL NUR 88 ZEICHEN !
690 FE0610    6100FEF0                BSR INLINE0;
691 FE0614    610003E4                BSR PCRLF;
692 FE0618    2C4C                    MOVEA.L A4,A6;
693 FE061A    0C1E000D      ACIA1IN1: CMPI.B $0D,(A6)+;
694 FE061E    66FA                    BNE.S ACIA1IN1;
695 FE0620    538E                    SUBQ.L 1,A6;
696 FE0622    4CDF3000                MOVEM.L (A7)+,A4-A5;
697 FE0626    4E75                    RTS;
698
699
700                         !** PRINT ONE LINE INFOR. BETWEEN A5 AND A6-1
701
702 FE0628    48E78004      ACIA1OUL: MOVEM.L A5/D0,-(A7);
703 FE062C    610003CC                BSR PCRLF;
704 FE0630    101D          ACIA1OU1: MOVE.B (A5)+,D0;
705 FE0632    6100000C                BSR OUTCH;
706 FE0636    BDCD                    CMPA.L A5,A6;
707 FE0638    62F6                    BHI.S ACIA1OU1;
708 FE063A    4CDF2001                MOVEM.L (A7)+,A5/D0;
709 FE063E    4E75                    RTS;
710
711                         !******* I/O HANDLER DOES OUTPUT ACORDING IOFLAG ******
712                         !*   BIT 0 IS OUTPUT ACIA 1 OR VIDEO
713                         !*   BIT 1 IS OUTPUT ACIA 2
714                         !*
715                         !*
716                         !*   BIT 15 IS TO AN USER DEFINED ROUTINE
717                         !*          THE LOCATION IS IN RAM AT USEROUT
718                         !*
719                         !*
720                         !*   BIT 16 IS INPUT ACIA 1  OR TAST
721                         !*   BIT 17 IS INPUT ACIA 2
722                         !*
723                         !*
724                         !*   BIT 31 IS INPUT OVER THE USERIN
725                         !*          LOCATION IS IN RAM
726                         !*************************************************
727                         !*   USER DEFINED IN/OUT MUST END WITH AN RTS
728                         !*   D0.B IS THE CHARACTER TO TRANSMITT
729                         !*   ALL OTHER REGISTERS MUST BE PUSHED/PULLED
```

```
730                     !*****************************************************
731
732 FE0640    48E74000      OUTCH:    MOVEM.L D1-D1,-(A7);
733 FE0644    22380546                MOVE.L IOFLAG,D1;
734 FE0648    08010000                BTST.L 0,D1;
735 FE064C    6712                    BEQ.S OUTCH1;
736 FE064E    083800048901            BTST.B 4,PIADRA;
737 FE0654    6606                    BNE VIDEOOUT;
738 FE0656    61000070                BSR OUTA1;
739 FE065A    6004                    BRA  OUTCH1;
740 FE065C    61001A66      VIDEOOUT: BSR.W OUTCHAR; ! AUF VIDEO
741
742 FE0660    08010001      OUTCH1:   BTST.L 1,D1;
743 FE0664    6704                    BEQ.S OUTCH2;
744 FE0666    61000072                BSR OUTA2;
745                         OUTCH2:                 ! ON MDCR NO BYTETRANSFER
746 FE066A    08010003      OUTCH3:   BTST.L 3,D1;
747 FE066E    6704                    BEQ OUTCH4;
748 FE0670    6100007A                BSR OUTCENT;
749
750 FE0674    08010004      OUTCH4:   BTST.L 4,D1;
751 FE0678    6704                    BEQ   OUTCH5;
752 FE067A    61001A48                BSR   OUTCHAR;
753
754 FE067E    08010005      OUTCH5:   BTST.L 5,D1;
755 FE0682    6704                    BEQ   OUTCH15;
756 FE0684    61000042                BSR   OUTA1;
757
758                         !
759
760 FE0688    0801000F      OUTCH15:  BTST.L 15,D1;! IS FOR USER DEFINED OUTROUTINE
761 FE068C    6704                    BEQ.S OUTCH16;
762 FE068E    4EB805EE                JSR USEROUT;
763 FE0692    4CDF0002      OUTCH16:  MOVEM.L (A7)+,D1-D1;
764 FE0696    4E75                    RTS;
765
766
767
768
769 FE0698    48E74000      INCH:     MOVEM.L D1-D1,-(A7);
770 FE069C    22380546                MOVE.L IOFLAG,D1;
771 FE06A0    08010010                BTST.L 16,D1;
772 FE06A4    6704                    BEQ.S INCHO2;
773 FE06A6    61000094                BSR INA1;
774 FE06AA    08010011      INCHO2:   BTST.L 17,D1;
775 FE06AE    6704                    BEQ.S INCHO3;
776 FE06B0    6100009A                BSR INA2;
777 FE06B4    08010012      INCHO3:   BTST.L 18,D1;! RESEVERD FOR LATER USE
778
779                         !
780
781 FE06B8    0801001F      INCHO15:  BTST.L 31,D1;! IS FOR USER INPUT
782 FE06BC    6704                    BEQ.S INCHO16;
783 FE06BE    4EB805F4                JSR USERIN;
784 FE06C2    4CDF0002      INCHO16:  MOVEM.L (A7)+,D1-D1;
785 FE06C6    4E75                    RTS;
786
```

```
787
788
789                         !** OUTPUT TO ACIA1 **
790
791 FE06C8    2F00          OUTA1:    MOVE.L D0,-(A7);
792 FE06CA    083800028C05  OUTA11:   BTST.B 2,ACIA1CO;
793 FE06D0    67F8                    BEQ.S OUTA11;
794 FE06D2    11C08C01                MOVE.B D0,ACIA1DA;
795 FE06D6    201F                    MOVE.L (A7)+,D0;
796 FE06D8    4E75                    RTS;
797
798                         !** OUTPUT TO ACIA2 **
799                                                  ! THESE ROUTINES ARE CHANGED
800                                                  ! TO SERVICE THE MPSC
801 FE06DA    2F00          OUTA2:    MOVE.L D0,-(A7);
802 FE06DC    083800028C07  OUTA21:   BTST.B 2,ACIA2CO;
803 FE06E2    67F8                    BEQ.S OUTA21;
804 FE06E4    11C08C03                MOVE.B D0,ACIA2DA;
805 FE06E8    201F                    MOVE.L (A7)+,D0;
806 FE06EA    4E75                    RTS;
807
808
809                         ! OUTPUT TO CENTRONICS COMPATIBLE 7-BIT PAR. SS
810 FE06EC    0C38007F8805  OUTCENT:  CMPI.B $7F,VIAPBDIR;
811 FE06F2    662E                    BNE.S INICENT;
812 FE06F4    083800078819            BTST.B 7,VIAPPCR;
813 FE06FA    6726                    BEQ.S INICENT;
814 FE06FC    083800068819            BTST.B 6,VIAPPCR;
815 FE0702    671E                    BEQ.S INICENT;
816 FE0704    083800078801  CENTRWAI: BTST.B 7,VIAPBDAT;
817 FE070A    66F8                    BNE.S CENTRWAI;
818 FE070C    11C08801                MOVE.B D0,VIAPBDAT;
819 FE0710    08B800058819            BCLR.B 5,VIAPPCR;
820 FE0716    4E71                    NOP;
821 FE0718    4E71                    NOP;
822 FE071A    08F800058819            BSET.B 5,VIAPPCR;
823 FE0720    4E75                    RTS;
824
825 FE0722    11FC007F8805  INICENT:  MOVE.B $7F,VIAPBDIR;
826 FE0728    08F800058819            BSET.B 5,VIAPPCR;
827 FE072E    08F800068819            BSET.B 6,VIAPPCR;
828 FE0734    08F800078819            BSET.B 7,VIAPPCR;
829 FE073A    60C8                    BRA.S CENTRWAI;
830
831                         !** INPUT FROM ACIA1 **
832
833 FE073C    4A380556      INA1:     TST.B INTINPUT;
834 FE0740    67FA                    BEQ.S INA1;
835 FE0742    10380556                MOVE.B INTINPUT,D0;
836 FE0746    42380556                CLR.B INTINPUT;     ! DA ABGEHOLT
837 FE074A    4E75                    RTS;
838
839                         !** INPUT FROM ACIA2 **
840
841 FE074C    11FC00058C07  INA2:     MOVE.B 5,ACIA2CO;   ! WRITE POINTER TO REG #5
842 FE0752    11FC00EA8C07            MOVE.B $EA,ACIA2CO; ! ENABLE RTS AND DTR
843 FE0758    083800008C07  INAX2:    BTST.B 0,ACIA2CO;
```

```
844 FE075E    67F8                BEQ.S INAX2;
845 FE0760    11FC00058C07        MOVE.B 5,ACIA2CO;
846 FE0766    11FC00688C07        MOVE.B $68,ACIA2CO; ! DISABLE RTS AND DTR
847 FE076C    10388C03            MOVE.B ACIA2DA,D0;
848 FE0770    08800007            BCLR.L 7,D0;
849 FE0774    4E75                RTS;
850
851
852
853                       !** TRANSPARENT MODE FOR HOST SYSTEMKOPPL. **
854                       !** ON ACIA1 TERMINAL : ON ACIA2 HOST **
855 FE0776    61000282    HOSTTR:  BSR PCRLF;
856 FE077A    11FC00058C07         MOVE.B $5,ACIA2CO; ! AND THIS WITHOUT H.S.
857 FE0780    11FC00EA8C07         MOVE.B $EA,ACIA2CO;
858 FE0786    7401                 MOVEQ.L $01,D2;     ! CTR A IS END OF TRANSPARENT
859 FE0788    4A380556    HOSTTR1: TST.B INTINPUT;
860 FE078C    6710                 BEQ.S HOSTTR2;
861 FE078E    10380556             MOVE.B INTINPUT,D0;
862 FE0792    42380556             CLR.B INTINPUT;
863 FE0796    B400                 CMP.B D0,D2;
864 FE0798    6716                 BEQ.S HOSTEND;
865 FE079A    6100FF3E             BSR OUTA2;
866 FE079E    083800008C07 HOSTTR2: BTST.B 0,ACIA2CO;
867 FE07A4    67E2                 BEQ.S HOSTTR1;
868 FE07A6    10388C03             MOVE.B ACIA2DA,D0;
869 FE07AA    6100FE94             BSR OUTCH;
870 FE07AE    60D8                 BRA.S HOSTTR1;
871 FE07B0    61000248    HOSTEND: BSR PCRLF;
872 FE07B4    11FC00058C07         MOVE.B $5,ACIA2CO;! RTS ACTIVE
873 FE07BA    11FC00688C07         MOVE.B $68,ACIA2CO;
874 FE07C0    9080                 SUB D0,D0;
875 FE07C2    4E75                 RTS;
876
877
878                       !** INTERRUPT SERVICE FOR AUTOVEKTOR 3 INTERRUPT **
879
880 FE07C4    083800078907 SERVICE3: BTST.B 7,PIACRB;
881 FE07CA    67000130             BEQ.W  SERVACIA; ! PIA WARS NICHT
882
883
884                       /************************************************
885                       *                                              *
886                       *              INPUT-TASTATURTREIBER           *
887                       *                    FUER                      *
888                       *             RAFI TASTATUR 3.93 101.151       *
889                       *                 (c) kws 1983                 *
890                       *                                              *
891                       ************************************************
892                       *                                              *
893                       *  DIESER TREIBER CODIERT DIE VON DER TASTATUR  *
894                       *  KOMMENDEN ZEICHEN SO UM, DASS SIE DEM kws   *
895                       *  STANDARD ENTSPRECHEN.                       *
896                       *                                              *
897                       *  ZUSAETZLICH BEWIRKT:                        *
898                       *                                              *
899                       *  EINGABEZEICHEN      FUNKTION                *
900                       *  ------------------------------------------- *
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                        *  $8C (FUNKTIONSTASTE) UMSCHALTUNG AUF US-ASCII-  *
                        *  $8D                  ZEICHENSATZ                *
                        *  $8D (FUNTIONSTASTE)  UMSCHALTUNG AUF DEUTSCHEN  *
                        *                       ZEICHENSATZ                *
                        *                                                  *
                        ****************************************************/


                        FASCIION:   EQU   $8C;            !US-ASCII ZEICHENSATZ
                        FDEUTSCHAN: EQU   $8D;            !DEUTSCHER ZEICHENSATZ


 FE07CE   48E78080              MOVEM.L A0/D0,-(A7);
 FE07D2   10388905              MOVE.B  PIADRB,D0;
 FE07D6   083800048901          BTST.B  4,PIADRA;
 FE07DC   6732                  BEQ     RET;              !WIRD PER JUMPER IGNORIERT
 FE07DE   B03C0003              CMP.B   3,D0;             !CONTROL C ABFANGEN
 FE07E2   6732                  BEQ     CONTROLC0;
 FE07E4   B03C008C              CMP.B   FASCIION,D0;
 FE07E8   670000E2              BEQ.W   DEUTSCHAUS;
 FE07EC   B03C008D              CMP.B   FDEUTSCHAN,D0;
 FE07F0   670000C8              BEQ.W   DEUTSCHAN;
 FE07F4   41FA00E6              LEA.L   TABELLE,A0;       !WIR TRANSFORMIEREN NACHHER
 FE07F8   B018          LOOPAG:  CMP.B   (A0)+,D0;
 FE07FA   670E                  BEQ     GEFUNDEN;
 FE07FC   D1FC00000001          ADD.L   1,A0;
 FE0802   0C10FFFF              CMPI.B  -1,(A0);
 FE0806   6704                  BEQ     OKBIT7;
 FE0808   60EE                  BRA     LOOPAG;
 FE080A   1010          GEFUNDEN: MOVE.B  (A0),D0;
 FE080C   11C00556      OKBIT7:  MOVE.B  D0,@$556;        !IST kws-NORM FUER INT.IN
 FE0810   4CDF0101      RET:     MOVEM.L (A7)+,A0/D0;
 FE0814   4E73                   RTE;


                        CONTROLC0:
 FE0816   4CDF0101              MOVEM.L (A7)+,A0/D0;
 FE081A   48E7FFFE              MOVEM.L D0-D7/A0-A6,-(A7);
 FE081E   24380546              MOVE.L IOFLAG,D2;   ! D2 IS TO SAVE LAST USER IO-CONFIGURATION
 FE0822   21FC00010001          MOVE.L STANDIO,IOFLAG;! AND IN MCR IS STANDART-IO
          0546
 FE082A   610001CE              BSR PCRLF;
 FE082E   4BFA0B98              LEA.L MESSMCR,A5;
 FE0832   6100FD1A              BSR PDATA;
 FE0836   4281                  CLR.L D1;
 FE0838   083800078907  SERVI03: BTST.B 7,PIACRB;
 FE083E   67F8                  BEQ.S SERVI03;
 FE0840   E181                  ASL.L 8,D1;         ! INFO EINS HOCH
 FE0842   10388905              MOVE.B PIADRB,D0;
 FE0846   08800007              BCLR.L 7,D0;
 FE084A   6100FDF4              BSR OUTCH;
 FE084E   D200                  ADD.B D0,D1;        ! NEUES ZEICHEN DAHINTER
 FE0850   0C00000D              CMPI.B $0D,D0;
 FE0854   66E2                  BNE.S SERVI03;
 FE0856   610001A2              BSR PCRLF;
 FE085A   0C8141424F0D          CMPI.L $41424F0D,D1;
 FE0860   6716                  BEQ.S ABORTPIAI;
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 957 FE0862   48FA0B8C            LEA.L MESSIGNO,A5;
 958 FE0866   6100FCE6            BSR PDATA;
 959 FE086A   6100018E            BSR PCRLF;
 960 FE086E   21C20546            MOVE.L D2,IOFLAG;   ! WAS OLD VALUE
 961 FE0872   4CDF7FFF            MOVEM.L (A7)+,D0-D7/A0-A6;
 962 FE0876   4E73                RTE;
 963 FE0878   4CDF7FFF     ABORTPIAI:MOVEM.L (A7)+,D0-D7/A0-A6;
 964                       CONTROLC:
 965 FE087C   48E7F0FE            MOVEM.L D0-D3/A0-A6,-(A7);
 966 FE0880   46FC2200            MOVE.W $2200,SR;
 967 FE0884   21FC00010001        MOVE.L STANDIO,IOFLAG;
               0546
 968 FE088C   21FC00010001        MOVE.L STANDIO,LASTIO;
               054A
 969 FE0894   61000164            BSR PCRLF;
 970 FE0898   6100FB28            BSR BREAKIN3;           ! REMOVES BPTS IN RAM
 971 FE089C   31FC00010544        MOVE.W  1,STEPFLG;      !SOLL ZUM MONITOR ZURUECK
 972 FE08A2   4CDF7F0F            MOVEM.L (A7)+,D0-D3/A0-A6;
 973 FE08A6   598F                SUBQ.L   4,A7;          !JETZT WIRD GETRICKST...
 974 FE08A8   48E70080            MOVEM.L A0-A0,-(A7);
 975 FE08AC   20780080            MOVE.L  TRAP0VECTOR,A0;
 976 FE08B0   2F480004            MOVE.L  A0,4(A7);
 977 FE08B4   4CDF0100            MOVEM.L (A7)+,A0-A0;
 978 FE08B8   4E75                RTS;                    !JUMP INDIRECT UEBER TRAP 0
 979
 980
 981                       !
 982                       ! DEUTSCHEN ZEICHENSATZ EIN/AUSSCHALTEN
 983                       !
 984 FE08BA   2F08         DEUTSCHAN:MOVE.L  A0,-(A7);
 985 FE08BC   41F804F8            LEA.L   VARIABLES,A0;
 986 FE08C0   117CFFFF0604        MOVE.B  -1,DEUTSCH;
 987 FE08C6   205F                MOVE.L  (A7)+,A0;
 988 FE08C8   6000FF46            BRA.W   RET;
 989
 990 FE08CC   2F08         DEUTSCHAUS:MOVE.L  A0,-(A7);
 991 FE08CE   41F804F8            LEA.L   VARIABLES,A0;
 992 FE08D2   42280004            CLR.B   DEUTSCH;
 993 FE08D6   205F                MOVE.L  (A7)+,A0;
 994 FE08D8   6000FF36            BRA.W   RET;
 995
 996                       !
 997                       ! UEBERSETZUNGSTABELLE SETZT 8-BIT-CODE UND
 998                       ! CONTROL-CHARACTERS IN DIE STANDARD-CODES UM
 999                       !
1000 FE08DC   B804         TABELLE:  DC.W    $B804;          !SPLIT LINE
1001 FE08DE   B306                   DC.W    $B306;          !INSERT LINE
1002 FE08E0   B17F                   DC.W    $B17F;          !DELETE CHAR
1003 FE08E2   BF02                   DC.W    $BF02;          !HOME DOWN
1004 FE08E4   0C1C                   DC.W    $0C1C;          !MODE CHANGE
1005 FE08E6   090E                   DC.W    $090E;          !CURSOR RIGHT
1006 FE08E8   B70B                   DC.W    $B70B;          !CURSOR HOME UP
1007 FE08EA   0B0F                   DC.W    $0B0F;          !CURSOR UP
1008 FE08EC   C005                   DC.W    $C005;          !INSERT CHARACTER MODE ON
1009 FE08EE   B213                   DC.W    $B213;          !DELETE REST OF LINE
1010 FE08F0   C22E                   DC.W    $C22E;          !PUNKT IM ZEHNERBLOCK
1011 FE08F2   B52B                   DC.W    $B52B;          !+ IM ZEHNERBLOCK
```

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1012 FE08F4    BA2D                DC.W    $BA2D;          !- IM ZEHNERBLOCK
1013 FE08F6    BD09                DC.W    $BD09;          !TAB IM ZEHNERBLOCK
1014 FE08F8    C30D                DC.W    $C30D;          !<CR> IM ZEHNERBLOCK
1015 FE08FA    FFFF                DC.W    -1;
1016
1017
1018 FE08FC    11FC00028C05  SERVACIA: MOVE.B 2,ACIA1CO;   ! WRITE POINTER 2 IN CHANNEL A
1019                                                       ! TO TEST INT PENDING BIT
1020 FE0902    083800018C05          BTST.B 1,ACIA1CO;    ! IF INTERRUPT COMES FROM ACIA1
1021 FE0908    670000AA              BEQ.W SERVICJE;
1022 FE090C    48E7E004              MOVEM.L D0-D2/A5,-(A7);
1023 FE0910    083800008C05          BTST.B 0,ACIA1CO;    ! SEE IF RX INT OR SPECIAL
1024 FE0916    6610                  BNE RXINT1;          ! RECEIVE CONDITION
1025 FE0918    11FC00108C05          MOVE.B $10,ACIA1CO; ! RESET EXTERNAL STATUS INT
1026 FE091E    11FC00388C05          MOVE.B $38,ACIA1CO; ! END OF INTERRUPT COMMAND
1027 FE0924    6000008A              BRA.W SERVI1;
1028 FE0928    10388C01      RXINT1: MOVE.B ACIA1DA,D0;  ! GET INFORMATION
1029 FE092C    11FC00388C05          MOVE.B $38,ACIA1CO; ! END OF INTERRUPT COMMAND
1030 FE0932    08800007              BCLR.L 7,D0;
1031 FE0936    11C00556              MOVE.B D0,INTINPUT; !PUT IT IN RAM
1032 FE093A    0C000003              CMPI.B $03,D0;      !AND LOOK IF IT WAS ^C
1033 FE093E    6670                  BNE.S SERVI1;
1034 FE0940    11FC00018C05          MOVE.B $1,ACIA1CO;
1035 FE0946    11FC00008C05          MOVE.B $0,ACIA1CO;  ! DISABLE INTERRUPT
1036 FE094C    24380546              MOVE.L IOFLAG,D2;   ! D2 IS TO SAVE LAST USER IO-CONFIGURATION
1037 FE0950    21FC00010001          MOVE.L STANDIO,IOFLAG;! AND IN MCR IS STANDART-IO
                0546
1038 FE0958    610000A0              BSR PCRLF;
1039 FE095C    4BFA0A6A              LEA.L MESSMCR,A5;
1040 FE0960    6100FBEC              BSR PDATA;
1041 FE0964    4281                  CLR.L D1;
1042 FE0966    083800008C05  SERVI3:   BTST.B 0,ACIA1CO;
1043 FE096C    67F8                  BEQ.S SERVI3;
1044 FE096E    E181                  ASL.L 8,D1;         ! TO COMPARE FIRST SHIFT
1045 FE0970    10388C01              MOVE.B ACIA1DA,D0;
1046 FE0974    08800007              BCLR.L 7,D0;
1047 FE0978    6100FCC6              BSR OUTCH;
1048 FE097C    D200                  ADD.B D0,D1;        ! THEN ADD NEW CHAR.
1049 FE097E    0C00000D              CMPI.B $0D,D0;
1050 FE0982    66E2                  BNE.S SERVI3;
1051 FE0984    61000074              BSR PCRLF;
1052 FE0988    11FC00018C05          MOVE.B $1,ACIA1CO;  ! END OF MCR SEQUENCE
1053 FE098E    11FC00188C05          MOVE.B $18,ACIA1CO; ! ENABLE INTERRUPTS AGAIN
1054 FE0994    0C8141424F0D          CMPI.L $41424F0D,D1;
1055 FE099A    671C                  BEQ.S ABOTSKMC;
1056 FE099C    4BFA0A52              LEA.L MESSIGNO,A5;
1057 FE09A0    6100FBAC              BSR PDATA;
1058 FE09A4    61000054              BSR PCRLF;
1059 FE09A8    42380556              CLR.B INTINPUT;
1060 FE09AC    21C20546              MOVE.L D2,IOFLAG;   ! WAS OLD VALUE
1061 FE09B0    4CDF2007      SERVI1:   MOVEM.L (A7)+,D0-D2/A5;
1062 FE09B4    4EF8054E      SERVICJE: JMP SERRTE3;        ! IN RAM IS RTE
1063
1064
1065 FE09B8    42380556      ABOTSKMC: CLR.B INTINPUT;
1066 FE09BC    4CDF2007              MOVEM.L (A7)+,D0-D2/A5;
1067 FE09C0    6000FEBA              BRA.W CONTROLC;
```

```
1068
1069
1070                    !**  PRINT SOME NIBBLES  **
1071                    !**  NUMBER OF NIBBLES IN D1.L  **
1072                    !**  NIBBLES IN D0.L, PRINTED FROM THE LEFT  **
1073
1074 FE09C4   48E73000    PRTNIB:  MOVEM.L D2-D3,-(A7);
1075 FE09C8   5381                 SUBQ.L 1,D1;       ! ADJUST COUNTER
1076 FE09CA   7403         PRTNIB2: MOVEQ.L 3,D2;
1077 FE09CC   E388         PRTNIB1: LSL.L 1,D0;
1078 FE09CE   E313                  ROXL.B 1,D3;
1079 FE09D0   51CAFFFA              DBF D2,PRTNIB1;
1080 FE09D4   C143                  EXG.L D0,D3;
1081 FE09D6   6110                  BSR.S PACK;
1082 FE09D8   6100FC66              BSR OUTCH;
1083 FE09DC   C740                  EXG.L D3,D0;
1084 FE09DE   51C9FFEA              DBF D1,PRTNIB2;
1085 FE09E2   4CDF000C              MOVEM.L (A7)+,D2-D3;
1086 FE09E6   4E75                  RTS;
1087
1088                    !**  CONVERT HEX-NIBBLE IN D0.B TO ASCII IN D0.B  **
1089
1090 FE09E8   0200000F    PACK:    ANDI.B $F,D0;
1091 FE09EC   0C00000A             CMPI.B $A,D0;
1092 FE09F0   6502                 BCS.S PACK1;
1093 FE09F2   5E00                 ADDQ.B 7,D0;
1094 FE09F4   06000030    PACK1:   ADDI.B $30,D0;
1095 FE09F8   4E75                 RTS;
1096
1097                    !**  PRINT (CR),(LF)  **
1098
1099 FE09FA   48E7         PCRLF:   MOVE.W SR,-(A7);
1100 FE09FC   48E7C000              MOVEM.L D0-D1,-(A7);
1101 FE0A00   103C000D              MOVE.B $D,D0;
1102 FE0A04   6100FC3A              BSR OUTCH;
1103 FE0A08   103C000A              MOVE.B $A,D0;
1104 FE0A0C   6100FC32              BSR OUTCH;
1105 FE0A10   323C0006              MOVE.W 6,D1;
1106 FE0A14   4200                  CLR.B D0;
1107 FE0A16   6100FC28    PCRLF1:  BSR OUTCH;
1108 FE0A1A   51C9FFFA              DBF D1,PCRLF1;! WAIT AND SEND SOME 0
1109 FE0A1E   4CDF0003              MOVEM.L (A7)+,D0-D1;
1110 FE0A22   44DF                  MOVE.W (A7)+,CCR;
1111 FE0A24   4E75                  RTS;
1112
1113                    !**  PRINT SOME BLANKS, NUMBER IN D1  **
1114
1115 FE0A26   2F00         PBLANK:  MOVE.L D0,-(A7);
1116 FE0A28   5341                  SUBQ.W 1,D1; ! ADJUST NUMBER
1117 FE0A2A   103C0020              MOVE.B $20,D0;
1118 FE0A2E   6100FC10    PBLANK1: BSR OUTCH;
1119 FE0A32   51C9FFFA              DBF D1,PBLANK1;
1120 FE0A36   201F                  MOVE.L (A7)+,D0;
1121 FE0A38   4E75                  RTS;
1122
1123
1124                    MOVECOM:
```

```
1125 FE0A3A   61000034            BSR READTREE;
1126 FE0A3E   6610                BNE ENDMOVE;
1127                          ! A1 FROM
1128                          ! A2 TO
1129                          ! D0 FILLER
1130 FE0A40   B5C9                CMP.L A1,A2;
1131 FE0A42   632A                BLS ENDFILL;
1132 FE0A44   2640                MOVE.L D0,A3; ! TOMOVE
1133                          MOVELOOP:
1134 FE0A46   16D9                MOVE.B (A1)+,(A3)+;
1135 FE0A48   B5C9                CMP.L A1,A2;
1136 FE0A4A   6CFA                BGE MOVELOOP;
1137 FE0A4C   003C0004            ORI.B 4,CCR;
1138                          ENDMOVE:
1139 FE0A50   4E75                 RTS;
1140
1141                          FILLCOM:
1142 FE0A52   6100001C            BSR READTREE;
1143 FE0A56   6616                BNE ENDFILL;
1144                          ! A1 FROM
1145                          ! A2 TO
1146                          ! D0 FILLER
1147 FE0A58   B5C9                CMP.L A1,A2;
1148 FE0A5A   6312                BLS ENDFILL;
1149 FE0A5C   B0BC000000FF        CMP.L $FF,D0;
1150 FE0A62   6E0A                BGT ENDFILL;
1151                          FILLLOOP:
1152 FE0A64   12C0                MOVE.B D0,(A1)+;
1153 FE0A66   B5C9                CMP.L A1,A2;
1154 FE0A68   6CFA                BGE FILLLOOP;
1155 FE0A6A   003C0004            ORI.B 4,CCR;
1156                          ENDFILL:
1157 FE0A6E   4E75                RTS;
1158
1159                          READTREE:
1160 FE0A70   61000546             BSR SEANEXT;
1161 FE0A74   5380                 SUBQ.L 1,A5;
1162 FE0A76   610002DA             BSR READHX;
1163 FE0A7A   660E                 BNE ENDTREE;
1164 FE0A7C   2240                 MOVE.L D0,A1;
1165 FE0A7E   610002D2             BSR READHX;
1166 FE0A82   6606                 BNE ENDTREE;
1167 FE0A84   2440                 MOVE.L D0,A2;
1168 FE0A86   610002DA             BSR READHX;
1169                          ENDTREE:
1170 FE0A8A   4E75                 RTS;
1171
1172                          !** OPEN MEMORY **
1173
1174 FE0A8C   95CA           MEMORY:  SUBA.L A2,A2; ! A2 IS MEMORY POINTER=0 INITIAL DEFAULT
1175 FE0A8E   61000528              BSR SEANEXT;
1176 FE0A92   0C00000D              CMPI.B $0D,D0;
1177 FE0A96   670E                  BEQ.S MEMORY1;
1178 FE0A98   538D                  SUBQ.L 1,A5;
1179 FE0A9A   610002B6              BSR READHX;
1180 FE0A9E   6606                  BNE.S MEMORY1;
1181 FE0AA0   08800000              BCLR.L 0,D0; ! ONLY IN WORD-SIZE
```

```
1182 FE0AA4   2440              MOVEA.L D0,A2 ;
1183 FE0AA6   6100FF52    MEMORY1: BSR PCRLF;
1184 FE0AAA   200A              MOVE.L A2,D0;
1185 FE0AAC   7206              MOVEQ.L 6,D1;
1186 FE0AAE   E180              ASL.L 8,D0;
1187 FE0AB0   6100FF12          BSR PRTNIB; ! PRINT THE ADDRESS IN 6 NUMBERS
1188 FE0AB4   103C0020          MOVE.B $20,D0;
1189 FE0AB8   6100FB86          BSR OUTCH;
1190 FE0ABC   3012              MOVE.W (A2),D0;
1191 FE0ABE   4840              SWAP D0;
1192 FE0AC0   7204              MOVEQ.L 4,D1;
1193 FE0AC2   6100FF00          BSR PRTNIB;
1194 FE0AC6   103C0020          MOVE.B $20,D0;
1195 FE0ACA   6100FB74          BSR OUTCH;  ! AND THE VALUE OF ADDRESS
1196 FE0ACE   6100FA20          BSR INLINE; ! GET COMMAND
1197 FE0AD2   2A4C              MOVEA.L A4,A5;
1198 FE0AD4   101D              MOVE.B (A5)+,D0;
1199 FE0AD6   0C00003D          CMPI.B '=',D0;
1200 FE0ADA   6722              BEQ.S MEMNEWV;
1201 FE0ADC   0C000023          CMPI.B '#',D0;
1202 FE0AE0   674E              BEQ.S MEMNEWA;
1203 FE0AE2   0C00000D          CMPI.B $0D,D0;
1204 FE0AE6   6758              BEQ.S MEMNEXT;
1205 FE0AE8   0C00005E          CMPI.B '^',D0;
1206 FE0AEC   6758              BEQ.S MEMLOWER;
1207 FE0AEE   0C000051          CMPI.B 'Q',D0;
1208 FE0AF2   6602              BNE.S MEMORY2;
1209 FE0AF4   4E75              RTS;        ! THIS IS END OF OPEN
1210 FE0AF6   703F        MEMORY2: MOVEQ.L '?',D0;
1211 FE0AF8   6100FB46          BSR OUTCH;
1212 FE0AFC   60A8              BRA.S MEMORY1;
1213
1214
1215 FE0AFE   61000252    MEMNEWV: BSR READHX;
1216 FE0B02   66F2              BNE.S MEMORY2;
1217 FE0B04   3480              MOVE.W D0,(A2);
1218 FE0B06   B05A              CMP.W (A2)+,D0;
1219 FE0B08   6602              BNE.S MEMERR;
1220 FE0B0A   609A              BRA.S MEMORY1;
1221
1222 FE0B0C   103C0020    MEMERR:  MOVE.B $20,D0;
1223 FE0B10   6100FB2E             BSR OUTCH;
1224 FE0B14   3022                MOVE.W -(A2),D0;
1225 FE0B16   4840              SWAP D0;
1226 FE0B18   7204              MOVEQ.L 4,D1;
1227 FE0B1A   6100FEA8          BSR PRTNIB;
1228 FE0B1E   103C0020          MOVE.B $20,D0;
1229 FE0B22   6100FB1C          BSR OUTCH;
1230 FE0B26   703F              MOVEQ.L '?',D0;
1231 FE0B28   6100FB16          BSR OUTCH;
1232 FE0B2C   6000FF78          BRA.W MEMORY1;
1233
1234
1235 FE0B30   61000220    MEMNEWA: BSR READHX;
1236 FE0B34   66C0              BNE.S MEMORY2;
1237 FE0B36   08800000          BCLR.L 0,D0;
1238 FE0B3A   2440              MOVEA.L D0,A2;
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1239 FE0B3C    6000FF68            BRA.W MEMORY1;
1240
1241 FE0B40    548A          MEMNEXT: ADDQ.L 2,A2;
1242 FE0B42    6000FF62            BRA.W MEMORY1;
1243
1244 FE0B46    558A          MEMLOWER:SUBQ.L 2,A2;
1245 FE0B48    6000FF5C            BRA.W MEMORY1;
1246
1247
1248                        !** DISPLAY ADDRESS REGISTER **
1249
1250 FE0B4C    04000030      ADREG:  SUBI.B $30,D0;
1251 FE0B50    D03C0008            ADD.B 8,D0;
1252 FE0B54    601C                BRA DATREG1;
1253
1254                        !** DISPLAY SUPERVISOR-STACKPOINTER **
1255
1256 FE0B56    103C000F      STACKP: MOVE.B 15,D0; ! = A7
1257 FE0B5A    6016                , BRA.S DATREG1;
1258
1259                        !** DISPLAY USER-STACKPOINTER **
1260
1261 FE0B5C    103C0010      USTACKP: MOVE.B 16,D0;
1262 FE0B60    6010                BRA.S DATREG1;
1263
1264                        !** DISPLAY STATUS-REGISTER **
1265
1266 FE0B62    103C0011      STATREG: MOVE.B 17,D0;
1267 FE0B66    600A                BRA.S DATREG1;
1268
1269                        !** DISPLAY PROGRAM COUNTER **
1270
1271 FE0B68    103C0012      PROCOUN: MOVE.B 18,D0;
1272 FE0B6C    6004                BRA.S DATREG1;
1273
1274                        !** DISPLAY DATA-REGISTER **
1275
1276 FE0B6E    04000030      DATREG:  SUBI.B $30,D0;! CONVERT NUMBER TO HEX
1277 FE0B72    4287          DATREG1: CLR.L D7;
1278 FE0B74    1E00                MOVE.B D0,D7; ! D7 CONTAINS OFFSET
1279 FE0B76    E38F                LSL.L 1,D7;   ! OFFSET*2
1280 FE0B78    2C07                MOVE.L D7,D6;
1281 FE0B7A    E38F                LSL.L 1,D7;   ! OFFSET*4
1282 FE0B7C    41F8055C            LEA.L REGS,A0;! BASE OF REGISTER-BLOCK
1283 FE0B80    6100F780            BSR REMBLANK;
1284 FE0B84    101D                MOVE.B (A5)+,D0;! GET CHAR
1285 FE0B86    0C00003D            CMPI.B '=',D0;  ! CHANGE REGISTER?
1286 FE0B8A    6614                BNE.S DATREG3;  ! NO
1287
1288                        !* CHANGE REGISTER *
1289
1290 FE0B8C    6100F774            BSR REMBLANK;
1291 FE0B90    610001C0            BSR READHX;    ! GET VALUE
1292 FE0B94    6608                BNE DATREG2;
1293 FE0B96    21807000            MOVE.L D0,0(A0,D7.W);! STORE VALUE
1294 FE0B9A    003C0004      DATREG11:ORI.B 4,CCR;   ! Z=1: NO ERROR
1295 FE0B9E    4E75          DATREG2: RTS;           ! Z=0: NO ERROR
```

```
1296
1297                        !*  DISPLAY REGISTER *
1298
1299 FE0BA0    0C00000D      DATREG3: CMPI.B $0D,D0; ! COMES <CR>?
1300 FE0BA4    66F8                   BNE.S DATREG2; ! NO: ERROR
1301 FE0BA6    43FA0788               LEA.L REGTAB,A1;! REGISTERNAMES
1302 FE0BAA    30316000               MOVE.W 0(A1,D6.W),D0;
1303 FE0BAE    6100F9FC               BSR OUTREG5;    ! PRINT REGISTERNAME
1304 FE0BB2    7208                   MOVEQ.L 8,D1;   ! 8 NIBBLES
1305 FE0BB4    20307000               MOVE.L 0(A0,D7.W),D0;! GET VALUE
1306 FE0BB8    6100FE0A               BSR PRTNIB;     ! PRINT IT
1307 FE0BBC    60DC                   BRA.S DATREG11;
1308
1309
1310
1311                        !** DISPLAYS THE LIST OF REGISTERS TO BE SHOWN **
1312 FE0BBE    6100FE3A      LISTREG: BSR PCRLF;
1313 FE0BC2    4BFA08D2               LEA.L MESDATEN,A5;
1314 FE0BC6    6100F986               BSR PDATA;
1315 FE0BCA    6100FE2E               BSR PCRLF;
1316 FE0BCE    4BFA08DA               LEA.L MESNUMM,A5;
1317 FE0BD2    6100F97A               BSR PDATA;
1318 FE0BD6    6100FE22               BSR PCRLF;
1319 FE0BDA    2E380558               MOVE.L REGFLAG,D7;
1320 FE0BDE    7412                   MOVEQ.L 18,D2;
1321 FE0BE0    702D          LISTREG2:MOVEQ.L $2D,D0; ! -
1322 FE0BE2    E29F                   ROR.L 1,D7;
1323 FE0BE4    6402                   BCC.S LISTREG1;
1324 FE0BE6    702B                   MOVEQ.L $2B,D0; ! +
1325 FE0BE8    6100FA56      LISTREG1:BSR OUTCH;
1326 FE0BEC    51CAFFF2               DBF D2,LISTREG2;
1327 FE0BF0    6100FE08               BSR PCRLF;
1328 FE0BF4    6100F8FA               BSR INLINE;
1329 FE0BF8    2A4C                   MOVEA.L A4,A5;
1330 FE0BFA    0C15000D               CMPI.B $0D,(A5);
1331 FE0BFE    6722                   BEQ.S LISTREGE;  ! ONLY LOOKING
1332 FE0C00    4283                   CLR.L D3;
1333 FE0C02    722B                   MOVEQ.L $2B,D1;  ! + FUER AN
1334 FE0C04    742D                   MOVEQ.L $2D,D2;  ! - FUER AUS
1335 FE0C06    7A12                   MOVEQ.L 18,D5;!IST SCHLEIFENZAEHLER
1336 FE0C08    7EFF                   MOVEQ.L -1,D7;
1337 FE0C0A    101D          LISTRE7: MOVE.B (A5)+,D0;
1338 FE0C0C    5287                   ADDQ.L 1,D7;
1339 FE0C0E    B400                   CMP.B D0,D2;
1340 FE0C10    6706                   BEQ.S LISTREG8;
1341 FE0C12    B200                   CMP.B D0,D1;
1342 FE0C14    660C                   BNE.S LISTREGE;
1343 FE0C16    0FC3                   BSET.L D7,D3;
1344 FE0C18    51CDFFF0      LISTREG8:DBF D5,LISTRE7;
1345 FE0C1C    21C30558               MOVE.L D3,REGFLAG;
1346 FE0C20    9080                   SUB D0,D0;
1347 FE0C22    6100FDD6      LISTREGE:BSR PCRLF;
1348 FE0C26    4E75                   RTS;
1349
1350
1351
1352                        !** ERZEUGT EINE LISTE DER ACTIVIERTEN I/O-KANAELE **
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```
1353
1354 FE0C28   2E380546     IOLIST:  MOVE.L IOFLAG,D7;
1355 FE0C2C   6100FDCC              BSR PCRLF;
1356 FE0C30   720F                  MOVEQ.L 15,D1;
1357 FE0C32   704F                  MOVEQ.L $4F,D0;
1358 FE0C34   6100FA0A     IOLIST1: BSR OUTCH;
1359 FE0C38   51C9FFFA              DBF D1,IOLIST1;
1360 FE0C3C   7049                  MOVEQ.L $49,D0;
1361 FE0C3E   720F                  MOVEQ.L 15,D1;
1362 FE0C40   6100F9FE     IOLIST2: BSR OUTCH;
1363 FE0C44   51C9FFFA              DBF D1,IOLIST2;
1364 FE0C48   6100FDB0              BSR PCRLF;
1365 FE0C4C   4BFA0870              LEA.L MES1234,A5;
1366 FE0C50   2C4D                  MOVEA.L A5,A6;
1367 FE0C52   6100F8FA              BSR PDATA;
1368 FE0C56   2A4E                  MOVEA.L A6,A5;
1369 FE0C58   6100F8F4              BSR PDATA;
1370 FE0C5C   6100FD9C              BSR PCRLF;
1371 FE0C60   741F                  MOVEQ.L 31,D2;
1372 FE0C62   702D         IOLIST3: MOVEQ.L $2D,D0;! -
1373 FE0C64   E29F                  ROR.L 1,D7;
1374 FE0C66   6402                  BCC.S IOLIST4;
1375 FE0C68   702B                  MOVEQ.L $2B,D0;! +
1376 FE0C6A   6100F9D4     IOLIST4: BSR OUTCH;
1377 FE0C6E   51CAFFF2              DBF D2,IOLIST3;
1378 FE0C72   6100FD86              BSR PCRLF;
1379 FE0C76   6100F878              BSR INLINE;
1380 FE0C7A   0C14000D              CMPI.B $0D,(A4);
1381 FE0C7E   6726                  BEQ.S IOLISTE;
1382 FE0C80   722B                  MOVEQ.L $2B,D1;!  +
1383 FE0C82   742D                  MOVEQ.L $2D,D2;! -
1384 FE0C84   761F                  MOVEQ.L 31,D3;
1385 FE0C86   4284                  CLR.L D4;
1386 FE0C88   4285                  CLR.L D5;
1387 FE0C8A   101C         IOLIST5: MOVE.B (A4)+,D0;
1388 FE0C8C   B400                  CMP.B D0,D2;
1389 FE0C8E   6706                  BEQ.S IOLIST6;
1390 FE0C90   B200                  CMP.B D0,D1;
1391 FE0C92   6612                  BNE.S IOLISTE;
1392 FE0C94   09C5                  BSET.L D4,D5;
1393 FE0C96   5284         IOLIST6: ADDQ.L 1,D4;
1394 FE0C98   51CBFFF0              DBF D3,IOLIST5;
1395 FE0C9C   21C50546              MOVE.L D5,IOFLAG;
1396 FE0CA0   21C5054A              MOVE.L D5,LASTID;
1397 FE0CA4   9080                  SUB D0,D0 ;
1398 FE0CA6   6100FD52     IOLISTE: BSR PCRLF;
1399 FE0CAA   4E75                  RTS;
1400
1401
1402
1403                        !** MEMORYDUMP FROM-TO IN HEX+ASCII **
1404
1405 FE0CAC   6100030A     DUMPMEM: BSR SEANEXT;
1406 FE0CB0   0C00000D              CMPI.B $0D,D0;
1407 FE0CB4   67000096              BEQ.W DUMPEND;
1408 FE0CB8   538D                  SUBQ.L 1,A5;
1409 FE0CBA   61000096              BSR READHX;
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1410 FE0CBE    6600008C              BNE.W DUMPEND;! BECAUSE ERROR
1411 FE0CC2    2440                  MOVEA.L D0,A2;! IN A2 IS FROM VAL.
1412 FE0CC4    6100008C              BSR READHX;
1413 FE0CC8    6702                  BEQ.S DUMPMZ1;
1414 FE0CCA    200A                  MOVE.L A2,D0; ! BECAUSE THERE WAS NO A3 INPUT
1415 FE0CCC    2640          DUMPMZ1: MOVEA.L D0,A3;! IN A3 IS TO
1416 FE0CCE    200A          DUMPMZ:  MOVE.L A2,D0;
1417 FE0CD0    6100FD28              BSR PCRLF;
1418 FE0CD4    7208                  MOVEQ.L 8,D1;
1419 FE0CD6    6100FCEC              BSR PRTNIB;
1420 FE0CDA    7204                  MOVEQ.L 4,D1;
1421 FE0CDC    6100FD48              BSR PBLANK;
1422 FE0CE0    4280                  CLR.L D0 ;
1423 FE0CE2    4283                  CLR.L D3;
1424 FE0CE4    10323800      DUMPM3:  MOVE.B 0(A2,D3),D0;
1425 FE0CE8    E098                  ROR.L 8,D0;
1426 FE0CEA    5283                  ADDQ.L 1,D3;
1427 FE0CEC    7202                  MOVEQ.L 2,D1;! TWO NIBBLES
1428 FE0CEE    6100FCD4              BSR PRTNIB;
1429 FE0CF2    7201                  MOVEQ.L 1,D1;
1430 FE0CF4    6100FD30              BSR PBLANK;
1431 FE0CF8    0C030010              CMPI.B 16,D3;
1432 FE0CFC    6DE6                  BLT.S DUMPM3;!  ALSO PRINT 16 HEX.BYTES
1433 FE0CFE    4283                  CLR.L D3;
1434 FE0D00    7203                  MOVEQ.L 3,D1;
1435 FE0D02    6100FD22              BSR PBLANK;
1436 FE0D06    10323800      DUMPM4:  MOVE.B 0(A2,D3),D0;
1437 FE0D0A    0C000020              CMPI.B $20,D0;
1438 FE0D0E    6D06                  BLT.S DUMP5;
1439 FE0D10    0C00007E              CMPI.B $7E,D0;
1440 FE0D14    6F04                  BLE DUMP6;
1441 FE0D16    103C005F      DUMP5:   MOVE.B $5F,D0;
1442 FE0D1A    6100F924      DUMP6:   BSR OUTCH;
1443 FE0D1E    5283                  ADDQ.L 1,D3;
1444 FE0D20    0C030010              CMPI.B 16,D3;
1445 FE0D24    6DE0                  BLT.S DUMPM4;! A FEW MORE ASCIIS
1446 FE0D26    D5FC00000010          ADDA.L 16,A2;
1447 FE0D2C    4A380556              TST.B INTINPUT;
1448 FE0D30    660C                  BNE.S DUMPWEI;
1449 FE0D32    B7CA                  CMPA.L A2,A3;
1450 FE0D34    6C98                  BGE DUMPMZ;! NEXT LINE
1451 FE0D36    9080                  SUB.L D0,D0;
1452 FE0D38    6100FCC0              BSR PCRLF;
1453 FE0D3C    4E75                  RTS;
1454 FE0D3E    6100F958      DUMPWEI: BSR INCH;
1455 FE0D42    6100F954              BSR INCH;
1456 FE0D46    0C00000D              CMPI.B $0D,D0;
1457 FE0D4A    6682                  BNE DUMPMZ;
1458 FE0D4C    6100FCAC      DUMPEND: BSR PCRLF;
1459 FE0D50    4E75                  RTS;
1460
1461
1462
1463
1464                         !**  READ UP TO 8 ASCII'S AND CONVERT  **
1465                         !**  THEM TO HEX. RESULT IN D0.L       **
1466
```

```
1467 FE0D52   48E76000     READHX:  MOVEM.L D1-D2,-(A7);
1468 FE0D56   4280                  CLR.L D0;
1469 FE0D58   4281                  CLR.L D1;
1470 FE0D5A   6100F5A6              BSR REMBLANK;! REMOVE BLANKS
1471 FE0D5E   343C0007              MOVE.W 7,D2; ! MAX. 8 ASCII'S
1472 FE0D62   101D         READHX0: MOVE.B (A5)+,D0;! GET CHAR
1473 FE0D64   610001C4              BSR ASTOHX;
1474 FE0D68   661A                  BNE.S READHX9;
1475 FE0D6A   E981                  ASL.L 4,D1;
1476 FE0D6C   8280                  OR.L D0,D1;
1477 FE0D6E   51CAFFF2              DBF D2,READHX0;
1478 FE0D72   61000022     READHX3: BSR WHATFO;     ! COMES " " OR <CR>?
1479 FE0D76   6606                  BNE READ4HX;    ! Z=0: ERROR
1480 FE0D78   2001                  MOVE.L D1,D0;
1481 FE0D7A   003C0004              ORI.B 4,CCR;   ! Z=1: NO ERROR
1482 FE0D7E   4CDF0006     READ4HX: MOVEM.L (A7)+,D1-D2;
1483 FE0D82   4E75                  RTS;
1484
1485 FE0D84   0C020007     READHX9: CMPI.B 7,D2;! ERROR IN FIRST CHAR?
1486 FE0D88   5380                  SUBQ.L 1,A5;! ADJUST POINTER
1487 FE0D8A   66E6                  BNE.S READHX3;! NO: OK
1488 FE0D8C   4CDF0006              MOVEM.L (A7)+,D1-D2;
1489 FE0D90   023C00FB              ANDI.B $FB,CCR;! YES: ERROR
1490 FE0D94   4E75                  RTS;
1491
1492                       !** LOOK IF BLANK OR <CR>  OR - OR , COMES UP  **
1493                       !** Z=1: YES, Z=0: NO                          **
1494
1495 FE0D96   101D         WHATFO: MOVE.B (A5)+,D0;
1496 FE0D98   0C00000D             CMPI.B $0D,D0;
1497 FE0D9C   6716                 BEQ.S WHATFO1;
1498 FE0D9E   0C000020             CMPI.B $20,D0;
1499 FE0DA2   6710                 BEQ.S WHATFO1;
1500 FE0DA4   0C00002D             CMPI.B $2D,D0;!  =-
1501 FE0DA8   670A                 BEQ.S WHATFO1;
1502 FE0DAA   0C00002C             CMPI.B $2C,D0;!  =,
1503 FE0DAE   6704                 BEQ.S WHATFO1;
1504 FE0DB0   023C00FB             ANDI.B $FB,CCR;! Z=0: ERROR
1505 FE0DB4   4E75        WHATFO1:RTS;            ! Z=1: NO ERROR
1506
1507                       !** LOAD MOTOROLA-CODE  **
1508
1509 FE0DB6   61000200     MOLOAD: BSR SEANEXT;
1510 FE0DBA   5380                 SUBQ.L 1,A5;
1511 FE0DBC   6100FF94             BSR READHX;
1512 FE0DC0   6702                 BEQ.S MOLONOF;
1513 FE0DC2   4280                 CLR.L D0;
1514 FE0DC4   2C00        MOLONOF:MOVE.L D0,D6;
1515 FE0DC6   6100FC32    MOLOANER:BSR PCRLF;
1516 FE0DCA   4BFA0612             LEA.L MESFILED,A5;
1517 FE0DCE   6100F77E             BSR PDATA;
1518 FE0DD2   6100FC26             BSR PCRLF;
1519 FE0DD6   6100F718             BSR INLINE;
1520 FE0DDA   66EA                 BNE.S MOLOANER;
1521 FE0DDC   4BF80620             LEA.L COMBUFF,A5;
1522 FE0DE0   610001FA    MOLOADS:BSR LOADSYN ; ! SYNTAX COMANDLINE
1523 FE0DE4   66E0                 BNE.S MOLOANER;
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1524                        !*** LATER THIS IS THE POINT TO GO TO MINI-OCR
1525 FE0DE6   0C040002              CMPI.B 2,D4;
1526 FE0DEA   6604                  BNE OTHERLOA;
1527 FE0DEC   60000B80              BRA.W MINILOAD;
1528 FE0DF0   21F80546054A  OTHERLOA:MOVE.L IOFLAG,LASTIO;
1529 FE0DF6   4A03                  TST.B D3; ! IF THERE IS A MESS. TO HOST
1530 FE0DF8   671A                  BEQ.S MONOMESS;
1531 FE0DFA   4280                  CLR.L D0;
1532 FE0DFC   08C0                  BSET.L D5,D0;! IS OUTFLAG
1533 FE0DFE   21C00546              MOVE.L D0,IOFLAG;
1534 FE0E02   5383                  SUBQ.L 1,D3;
1535 FE0E04   101B          MOLOAD12:MOVE.B (A3)+,D0;
1536 FE0E06   6100F838              BSR OUTCH;
1537 FE0E0A   51CBFFF8              DBF D3,MOLOAD12;
1538 FE0E0E   700D                  MOVEQ,L $0D,D0;
1539 FE0E10   6100F82E              BSR OUTCH;! NOW COMAND IS TRANSMITTED
1540 FE0E14   4280          MONOMESS:CLR.L D0;
1541 FE0E16   D8BC00000010          ADD.L 16,D4;
1542 FE0E1C   09C0                 .BSET.L D4,D0;
1543 FE0E1E   21C00546              MOVE.L D0,IOFLAG;! IS INCHANAL
1544 FE0E22   4287                  CLR D7;
1545 FE0E24   4A02                  TST.B D2;
1546 FE0E26   6706                  BEQ.S MONOHEAD;
1547 FE0E28   61000128              BSR FINDHEAD;
1548 FE0E2C   4287                  CLR D7;! IS FIRST ZERO FOR OFFSET
1549 FE0E2E   6100F868      MONOHEAD:BSR INCH;
1550 FE0E32   4284                  CLR.L D4;! IS CHECKSUM
1551 FE0E34   0C000053              CMPI.B 'S',D0;
1552 FE0E38   66F4                  BNE.S MONOHEAD;
1553 FE0E3A   6100F85C              BSR INCH;
1554 FE0E3E   0C000031              CMPI.B '1',D0;
1555 FE0E42   673A                  BEQ.S READS1;
1556 FE0E44   0C000032              CMPI.B '2',D0;
1557 FE0E48   67000094              BEQ.W READS2;
1558 FE0E4C   0C000038              CMPI.B '8',D0;
1559 FE0E50   6708                  BEQ.S READEND;
1560 FE0E52   0C000039              CMPI.B '9',D0;
1561 FE0E56   6702                  BEQ.S READEND;
1562 FE0E58   60D4                  BRA MONOHEAD;
1563 FE0E5A   6100F83C      READEND:BSR INCH;
1564 FE0E5E   0C00000D              CMPI.B $0D,D0;
1565 FE0E62   66F6                  BNE.S READEND;
1566 FE0E64   21F8054A0546          MOVE.L LASTIO,IOFLAG;
1567 FE0E6A   6100FB8E              BSR PCRLF;
1568 FE0E6E   4BFA0593              LEA.L MESSEND,A5;
1569 FE0E72   6100F60A              BSR PDATA;
1570 FE0E76   6100FB82              BSR PCRLF;
1571 FE0E7A   9080                  SUB D0,D0;
1572 FE0E7C   4E75          MOLOADER:RTS ; ! ERROR
1573
1574 FE0E7E   61000042      READS1: BSR READ2HX;! READS S1 RECORDS
1575 FE0E82   0C000003              CMPI.B 3,D0;
1576 FE0E86   67A6                  BEQ.S MONOHEAD;
1577 FE0E88   5980                  SUBQ.L 4,D0;
1578 FE0E8A   2600                  MOVE.L D0,D3;
1579 FE0E8C   61000034              BSR READ2HX;
1580 FE0E90   E180                  ASL.L 8,D0;
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1581 FE0E92   2400              MOVE.L D0,D2;
1582 FE0E94   6100002C    READS12:BSR READ2HX;! IS SECOND ENTRY FROM S2-REC
1583 FE0E98   8440              OR.W D0,D2;
1584 FE0E9A   4A87              TST D7;
1585 FE0E9C   6608              BNE.S READS13;
1586 FE0E9E   7E01              MOVEQ.L 1,D7;
1587 FE0EA0   4A86              TST D6;
1588 FE0EA2   6702              BEQ.S READS13;
1589 FE0EA4   9C82              SUB.L D2,D6;
1590 FE0EA6   D486        READS13:ADD.L D6,D2;
1591 FE0EA8   2A42              MOVEA.L D2,A5;! POINTER (PC)
1592
1593 FE0EAA   61000016    READMORE:BSR READ2HX;
1594 FE0EAE   1AC0              MOVE.B D0,(A5)+;
1595 FE0EB0   51CBFFF8          DBF D3,READMORE;! GET REST OF LINE
1596 FE0EB4   6100000C          BSR READ2HX;
1597 FE0EB8   0C04FFFF          CMPI.B -1,D4;
1598 FE0EBC   6648              BNE READSERR;
1599 FE0EBE   6000FF6E          BRA.W MONOHEAD;
1600                             *
1601 FE0EC2   4281        READ2HX:CLR.L D1;
1602 FE0EC4   4280              CLR.L D0;
1603 FE0EC6   6100F7D0          BSR INCH;! GET FIRST CHAR.
1604 FE0ECA   615E              BSR.S ASTOHX;
1605 FE0ECC   E980              ASL.L 4,D0;
1606 FE0ECE   3200              MOVE.W D0,D1;
1607 FE0ED0   4280              CLR.L D0;
1608 FE0ED2   6100F7C4          BSR INCH;
1609 FE0ED6   6152              BSR.S ASTOHX;
1610 FE0ED8   8041              OR.W D1,D0;
1611 FE0EDA   D800              ADD.B D0,D4;! CHECKSUM AUFADDIEREN
1612 FE0EDC   4E75              RTS;
1613
1614 FE0EDE   6100FFE2    READS2: BSR READ2HX;
1615 FE0EE2   0C000004          CMPI.B 4,D0;
1616 FE0EE6   6700FF46          BEQ.W MONOHEAD;
1617 FE0EEA   5B00              SUBQ.B 5,D0;
1618 FE0EEC   2600              MOVE D0,D3;
1619 FE0EEE   6100FFD2          BSR READ2HX;
1620 FE0EF2   E180              ASL.L 8,D0;
1621 FE0EF4   2400              MOVE.L D0,D2;
1622 FE0EF6   6100FFCA          BSR READ2HX;
1623 FE0EFA   8440              OR.W D0,D2;
1624 FE0EFC   C4BC0000FFFF      AND.L $0000FFFF,D2;
1625 FE0F02   E182              ASL.L 8,D2;
1626 FE0F04   608E              BRA.S READS12;! AND NOW LIKE S1
1627
1628
1629
1630 FE0F06   200D        READSERR:MOVE.L A5,D0;
1631 FE0F08   7208                 MOVEQ.L 8,D1;
1632 FE0F0A   21F8054A0546         MOVE.L LASTIO,IOFLAG;
1633 FE0F10   6100FAE8             BSR PCRLF;
1634 FE0F14   6100FAAE             BSR PRTNIB;
1635 FE0F18   4BFA049D             LEA.L MESSCHER,A5;
1636 FE0F1C   6100FADC             BSR PCRLF;
1637 FE0F20   6100F62C             BSR PDATA;
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1638 FE0F24   6100FAD4          BSR PCRLF;
1639 FE0F28   4E75              RTS;
1640
1641
1642
1643 FE0F2A   0C000030  ASTOHX: CMPI.B $30,D0;
1644 FE0F2E   6D20              BLT.S ASTERR;
1645 FE0F30   0C00003A          CMPI.B $3A,D0;
1646 FE0F34   6D10              BLT.S ASTO1;
1647 FE0F36   0C000041          CMPI.B $41,D0;
1648 FE0F3A   6D14              BLT.S ASTERR;
1649 FE0F3C   0C000046          CMPI.B $46,D0;
1650 FE0F40   6E0E              BGT.S ASTERR;
1651 FE0F42   903C0007          SUB.B 7,D0;
1652 FE0F46   C0BC0000000F ASTO1: AND.L $F,D0;
1653 FE0F4C   003C0004          ORI.B 4,CCR;
1654 FE0F50   4E75        ASTERR: RTS;
1655
1656
1657
1658 FE0F52   48E72020  FINDHEAD: MOVEM.L D2/A2,-(A7);
1659 FE0F56   2E38054A          MOVE.L LASTIO,D7;! OUTPUT LIKE BEFORE
1660 FE0F5A   CEBC0000FFFF      AND.L $FFFF,D7;
1661 FE0F60   DEB80546          ADD.L IOFLAG,D7;
1662 FE0F64   21C70546          MOVE.L D7,IOFLAG;
1663 FE0F68   6100FA90          BSR PCRLF;
1664 FE0F6C   5282              ADDQ.L 1,D2;
1665 FE0F6E   2202        FINDH0: MOVE.L D2,D1;
1666 FE0F70   224A              MOVEA.L A2,A1;! BEGINN OF HEADER
1667 FE0F72   6100F724    FINDH1: BSR INCH;
1668 FE0F76   6100F6C8          BSR OUTCH;! ECHO IT
1669 FE0F7A   0C000053          CMPI.B 'S',D0;
1670 FE0F7E   66F2              BNE.S FINDH1;
1671 FE0F80   6100F716          BSR INCH;
1672 FE0F84   6100F6BA          BSR OUTCH;
1673 FE0F88   0C000030          CMPI.B '0',D0;
1674 FE0F8C   66E4              BNE.S FINDH1;
1675 FE0F8E   6100F708    FINDH2: BSR INCH;
1676 FE0F92   6100F6AC          BSR OUTCH;
1677 FE0F96   5381              SUBQ.L 1,D1;
1678 FE0F98   B019              CMP.B (A1)+,D0;
1679 FE0F9A   67F2              BEQ.S FINDH2;
1680 FE0F9C   4A81              TST D1;
1681 FE0F9E   66CE              BNE.S FINDH0;
1682 FE0FA0   0C00000D          CMPI.B $0D,D0;
1683 FE0FA4   66C8              BNE.S FINDH0;
1684 FE0FA6   6100FA52          BSR PCRLF;
1685 FE0FAA   4BFA0421          LEA.L MESSFOUN,A5;
1686 FE0FAE   6100F59E          BSR PDATA;
1687 FE0FB2   4CDF0404          MOVEM.L (A7)+,D2/A2;
1688 FE0FB6   4E75              RTS;
1689
1690
1691
1692 FE0FB8   0C15000D  SEANEXT: CMPI.B $0D,(A5);
1693 FE0FBC   671A              BEQ.S SEANEXTE;
1694 FE0FBE   BBFC00000620      CMPA.L #COMBUFF,A5;
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1695 FE0FC4   6706              BEQ.S SEANEXT1;! SKIP BLANKS ONLY
1696 FE0FC6   0C1D0020          CMPI.B $20,(A5)+;
1697 FE0FCA   66EC              BNE.S SEANEXT;
1698 FE0FCC   0C1D0020  SEANEXT1: CMPI.B $20,(A5)+;
1699 FE0FD0   67FA              BEQ.S SEANEXT1;
1700 FE0FD2   102DFFFF          MOVE.B -1(A5),D0;
1701 FE0FD6   4E75              RTS;
1702 FE0FD8   1015      SEANEXTE: MOVE.B (A5),D0;
1703 FE0FDA   4E75              RTS;
1704
1705
1706                     !** IN IS A5 TO POINT TO COMANDLINE
1707                     !** OUT D2=LENGTH OF NAME
1708                     !**     A2=BEGIN OF  "
1709                     !**     D3=LENGTH OF MESSAGE
1710                     !**     A3=BEGIN OF M.
1711                     !**     D4 LOAD CHANAL NR 0....
1712                     !**     D5 MESSAGE CHANAL NR 0....
1713
1714 FE0FDC   4282      LOADSYN:  CLR.L D2;
1715 FE0FDE   4283              CLR.L D3;
1716 FE0FE0   2A380546          MOVE.L IOFLAG,D5;
1717 FE0FE4   2805              MOVE.L D5,D4;
1718 FE0FE6   CABC0000FFFF      AND.L $FFFF,D5;
1719 FE0FEC   5385              SUBQ.L 1,D5;! IS STANDART OUTPUT CHANAL
1720 FE0FEE   4844              SWAP.W D4;
1721 FE0FF0   C8BC0000FFFF      AND.L $FFFF,D4;! INCHANAL-NR
1722 FE0FF6   7802              MOVEQ.L 2,D4;! STANDARD MDCR
1723
1724 FE0FF8   6100FFBE          BSR SEANEXT;
1725 FE0FFC   0C00000D          CMPI.B $0D,D0;
1726 FE1000   6744              BEQ.S LOADS22;
1727 FE1002   0C00002F          CMPI.B '/',D0;
1728 FE1006   675A              BEQ.S LOADSEON;
1729 FE1008   0C000023          CMPI.B '#',D0;
1730 FE100C   670000A0          BEQ.W LOADEND;! LOAD WITHOUT NAME
1731 FE1010   0C000022          CMPI.B $22,D0;
1732 FE1014   6600009C          BNE.W LOADSERR;
1733 FE1018   244D              MOVEA.L A5,A2;! IS START OF HEADER
1734 FE101A   0C15000D  LOADS1:   CMPI.B $D,(A5);
1735 FE101E   67000092          BEQ.W  LOADSERR;
1736 FE1022   0C1D0022          CMPI.B $22,(A5)+;
1737 FE1026   66F2              BNE.S LOADS1;
1738 FE1028   240D              MOVE.L A5,D2;
1739 FE102A   5382              SUBQ.L 1,D2;
1740 FE102C   948A              SUB.L A2,D2;
1741 FE102E   6100F2D2          BSR REMBLANK;
1742 FE1032   101D              MOVE.B (A5)+,D0;
1743 FE1034   0C00000D          CMPI.B $0D,D0;
1744 FE1038   6774              BEQ.S LOADEND;
1745 FE103A   0C00002F          CMPI.B '/',D0;
1746 FE103E   6722              BEQ.S LOADSEON;
1747 FE1040   0C000023          CMPI.B '#',D0;
1748 FE1044   666C              BNE.S LOADSERR;
1749 FE1046   101D      LOADS22:  MOVE.B (A5)+,D0;! ENTRY WITHOUT NAME WITH CHANAL
1750 FE1048   6100FEE0          BSR ASTOHX;
1751 FE104C   6664              BNE.S LOADSERR;
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1752 FE104E    2800                MOVE.L D0,D4; ! IS IN-CHANAL-NR
1753 FE1050    6100F2B0            BSR REMBLANK;
1754 FE1054    101D                MOVE.B (A5)+,D0;
1755 FE1056    0C000000D           CMPI.B $0D,D0;
1756 FE105A    6752                BEQ.S LOADEND;
1757 FE105C    0C00002F            CMPI.B '/',D0;
1758 FE1060    6650                BNE.S LOADSERR;
1759 FE1062    6100F29E      LOADSEON: BSR REMBLANK;! IS FOR ALL AFTER /
1760 FE1066    101D                MOVE.B (A5)+,D0;
1761 FE1068    0C000000D           CMPI.B $0D,D0;
1762 FE106C    6740                BEQ.S LOADEND;
1763 FE106E    0C000022            CMPI.B $22,D0;
1764 FE1072    663E                BNE.S LOADSERR;
1765 FE1074    264D                MOVEA.L A5,A3;! IS START OF MESSAGE TO HOST
1766 FE1076    0C15000D      LOADSE1:  CMPI.B $D,(A5);
1767 FE107A    6736                BEQ   LOADSERR;
1768 FE107C    0C1D0022            CMPI.B $22,(A5)+;
1769 FE1080    66F4                BNE.S LOADSE1;
1770 FE1082    260D                MOVE.L A5,D3;
1771 FE1084    5383                SUBQ.L 1,D3;
1772 FE1086    968B                SUB.L A3,D3;! IS LENGTH
1773 FE1088    6100F278            BSR REMBLANK;
1774 FE108C    101D                MOVE.B (A5)+,D0;
1775 FE108E    0C000000D           CMPI.B $0D,D0;
1776 FE1092    671A                BEQ.S LOADEND;
1777 FE1094    0C000023            CMPI.B '#',D0;
1778 FE1098    6618                BNE.S LOADSERR;
1779 FE109A    101D                MOVE.B (A5)+,D0;
1780 FE109C    6100FE8C            BSR ASTOHX;
1781 FE10A0    6610                BNE.S LOADSERR;
1782 FE10A2    2A00                MOVE.L D0,D5;
1783 FE10A4    6100F25C            BSR REMBLANK;
1784 FE10A8    0C15000D            CMPI.B $0D,(A5);
1785 FE10AC    6604                BNE.S LOADSERR;
1786 FE10AE    9080          LOADEND:  SUB D0,D0;
1787 FE10B0    4E75                RTS;
1788 FE10B2    023C00FB      LOADSERR: ANDI.B $FB,CCR;
1789 FE10B6    4E75                RTS;
1790
1791                        !** RECORDES S-RECORDS IN MOTOROLA-FORMAT **
1792
1793 FE10B8    21F80546054A  SAVEMOCO: MOVE.L IOFLAG,LASTIO;
1794 FE10BE    6100FEF8            BSR SEANEXT;
1795 FE10C2    538D                SUBQ.L 1,A5;
1796 FE10C4    6100FC8C            BSR READHX;! SYNTAX IS: SA FROM,TO
1797 FE10C8    660000C0            BNE.W SAVEMOEN;! ERROR
1798 FE10CC    2840                MOVEA.L D0,A4;! IS FROM POINTER
1799 FE10CE    6100FC82            BSR READHX;
1800 FE10D2    660000B6            BNE.W SAVEMOEN;! ERROR
1801 FE10D6    2A40                MOVEA.L D0,A5;! IS TO POINTER
1802 FE10D8    BBCC          SAVEMOSE: CMPA.L A4,A5;! TO LOOK IF A5>A4 ***SEK.ENTRY FROM
1803                        !*  EDITOR FILE-SAVE
1804 FE10DA    630000AE            BLS.W SAVEMOEN;! DO NOT
1805 FE10DE    48E7000C            MOVEM.L A4-A5,-(A7);! SAVE POINTERS
1806 FE10E2    6100F916      SAVEMO1:  BSR PCRLF;
1807 FE10E6    4BFA02F6            LEA.L MESFILED,A5;
1808 FE10EA    6100F462            BSR PDATA;! TO ASK FILEDEFINITION
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1809 FE10EE   6100F90A            BSR PCRLF;
1810 FE10F2   6100F3FC            BSR INLINE;! TO GET COMMAND
1811 FE10F6   66EA                BNE.S SAVEMO1;
1812 FE10F8   4BF80620            LEA.L COMBUFF,A5;
1813 FE10FC   6100FEDE            BSR LOADSYN;
1814 FE1100   66E0                BNE.S SAVEMO1;! THERE WAS AN ERROR
1815 FE1102   4CDF3000            MOVEM.L (A7)+,A4-A5;
1816                      !** THIS IS TO GO TO MINI-DCR **
1817 FE1106   0C040002            CMPI.B 2,D4;
1818 FE110A   6604                BNE.S OTHERSAV;
1819 FE110C   6000090C            BRA.W MINISAVE;
1820
1821 FE1110   0C040001    OTHERSAV: CMPI.B 1,D4;
1822 FE1114   660C                BNE.S OTHERS11;
1823 FE1116   11FC00058C07        MOVE.B $5,ACIA2CO;! IS FOR ECHO FROM HOST
1824 FE111C   11FC00EA8C07        MOVE.B $EA,ACIA2CO; ! RTS IS LOW
1825 FE1122   4A83        OTHERS11: TST D3;
1826 FE1124   671C                BEQ.S SAVEMO2;! NO MESSAGE TO HOST
1827 FE1126   4280                CLR.L D0;
1828 FE1128   08C0                BSET.L D5,D0;
1829 FE112A   21C00546            MOVE.L D0,IOFLAG;
1830 FE112E   5383                SUBQ.L 1,D3;
1831 FE1130   101B        SAVEMO3:  MOVE.B (A3)+,D0;
1832 FE1132   6100F50C            BSR OUTCH;! SEND MESSAGE
1833 FE1136   51CBFFF8            DBF D3,SAVEMO3;
1834 FE113A   103C000D            MOVE.B $0D,D0;
1835 FE113E   6100F500            BSR OUTCH;
1836 FE1142   4280        SAVEMO2:  CLR.L D0;!   TO SET OUTCHANAL
1837 FE1144   09C0                BSET.L D4,D0;
1838 FE1146   21C00546            MOVE.L D0,IOFLAG;
1839 FE114A   4A82                TST D2;
1840 FE114C   671C                BEQ.S SAVEMO4;! NO HEADER
1841 FE114E   7053                MOVEQ.L 'S',D0;
1842 FE1150   6100F4EE            BSR OUTCH;
1843 FE1154   7030                MOVEQ.L '0',D0;
1844 FE1156   6100F4E8            BSR OUTCH;
1845 FE115A   5382                SUBQ.L 1,D2;
1846 FE115C   101A        SAVEMO5:  MOVE.B (A2)+,D0;
1847 FE115E   6100F4E0            BSR OUTCH;
1848 FE1162   51CAFFF8            DBF D2,SAVEMO5;! SEND HEADER
1849 FE1166   6100F892            BSR PCRLF;
1850 FE116A   6130        SAVEMO4:  BSR.S SAVESREC;! TO SEND S1/S2 RECORDS
1851 FE116C   7053                MOVEQ.L 'S',D0;
1852 FE116E   6100F4D0            BSR OUTCH;
1853 FE1172   7039                MOVEQ.L '9',D0;
1854 FE1174   6100F4CA            BSR OUTCH;
1855 FE1178   6100F880            BSR PCRLF;! THIS END
1856 FE117C   103805EC            MOVE.B ENDKENNU,D0;
1857 FE1180   6100F4BE            BSR OUTCH;! ENDKENNUNG DAHINTER
1858 FE1184   21F8054A0546        MOVE.L LASTIO,IOFLAG;
1859 FE118A   11FC00058C07 SAVEMOEN: MOVE.B $5,ACIA2CO;
1860 FE1190   11FC00688C07        MOVE.B $68,ACIA2CO; ! RTS RETURNS TO HIGH STATE
1861 FE1196   6100F862            BSR PCRLF;
1862 FE119A   4E75                RTS;
1863
1864
1865                      !** SENDS S1/S2 RECORDS FROM A4 TO A5 **
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1866 FE119C   4284          SAVESREC: CLR.L D4;! IS CHECKSUMCOUNT
1867 FE119E   6160                    BSR.S SAVESTLE;
1868 FE11A0   6D3A                    BLT.S SAVESRE4;
1869 FE11A2   7053                    MOVEQ.L 'S',D0;
1870 FE11A4   6100F49A                BSR OUTCH;
1871 FE11A8   B9FC0000FFEF            CMPA.L $FFFF-16,A4;
1872 FE11AE   6C2E                    BGE.S SAVESRE2;
1873 FE11B0   7031                    MOVEQ.L '1',D0;
1874 FE11B2   6100F48C                BSR OUTCH;
1875 FE11B6   2005                    MOVE.L D5,D0;
1876 FE11B8   5880                    ADDQ.L 4,D0;
1877 FE11BA   6138                    BSR.S SAVESNIB;! IS LENGHT OF LINE
1878 FE11BC   200C          SAVESRE1: MOVE.L A4,D0;
1879 FE11BE   E098                    ROR.L 8,D0;
1880 FE11C0   6132                    BSR.S SAVESNIB;
1881 FE11C2   200C                    MOVE.L A4,D0;!
1882 FE11C4   612E                    BSR.S SAVESNIB;! THIS WAS PC
1883 FE11C6   101C          SAVESRE3: MOVE.B (A4)+,D0;
1884 FE11C8   612A                    BSR.S SAVESNIB;
1885 FE11CA   51CDFFFA                DBF D5,SAVESRE3;
1886 FE11CE   4604                    NOT.B D4;
1887 FE11D0   1004                    MOVE.B D4,D0;
1888 FE11D2   6120                    BSR.S SAVESNIB;! AND CHECKSUM
1889 FE11D4   6100F824                BSR PCRLF;
1890 FE11D8   B9CD                    CMPA.L A5,A4;
1891 FE11DA   63C0                    BLS.S SAVESREC;! NEXT RECORD
1892 FE11DC   4E75          SAVESRE4: RTS;
1893
1894 FE11DE   7032          SAVESRE2: MOVEQ.L '2',D0;
1895 FE11E0   6100F45E                BSR OUTCH;
1896 FE11E4   2005                    MOVE.L D5,D0;
1897 FE11E6   5A80                    ADDQ.L 5,D0;
1898 FE11E8   610A                    BSR.S SAVESNIB;
1899 FE11EA   200C                    MOVE.L A4,D0;
1900 FE11EC   E098                    ROR.L 8,D0;
1901 FE11EE   E098                    ROR.L 8,D0;
1902 FE11F0   6102                    BSR.S SAVESNIB;
1903 FE11F2   60C8                    BRA.S SAVESRE1;
1904
1905
1906 FE11F4   D800          SAVESNIB: ADD.B D0,D4;
1907 FE11F6   E098                    ROR.L 8,D0;
1908 FE11F8   7202                    MOVEQ.L 2,D1;
1909 FE11FA   6100F7C8                BSR PRTNIB;
1910 FE11FE   4E75                    RTS;
1911
1912 FE1200   7A0F          SAVESTLE: MOVEQ.L 15,D5;! NR. OF BYTES-1
1913 FE1202   2C0D                    MOVE.L A5,D6;
1914 FE1204   9C8C                    SUB.L A4,D6;
1915 FE1206   0C8600000010            CMPI 16,D6;
1916 FE120C   6C02                    BGE.S SAVESTL1;
1917 FE120E   2A06                    MOVE.L D6,D5;
1918 FE1210   4E75          SAVESTL1: RTS;
1919
1920
1921
1922 FE1212   4EB900104EB0  ASSEMBO:  JSR ASSEMBLE;
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1923 FE1218   003C0004            ORI.B 4,CCR;
1924 FE121C   4E75                RTS;
1925
1926
1927
1928 FE121E   6100F7DA    PACKTAPE: BSR PCRLF;
1929 FE1222   4BFA01BA              LEA.L MESFILED,A5;
1930 FE1226   6100F326              BSR PDATA;
1931 FE122A   6100F7CE              BSR PCRLF;
1932 FE122E   6100F2C0              BSR INLINE;
1933 FE1232   6600EE92              BNE.W MLOOP;
1934 FE1236   4BF80620              LEA.L COMBUFF,A5;
1935 FE123A   6100FDA0              BSR LOADSYN;
1936 FE123E   6600EE86              BNE.W MLOOP;
1937 FE1242   60000912              BRA.W PACKT;
1938
1939
1940                      !** TRAP ERRORS COMES HERE **
1941                           .
1942
1943
1944 FE1246   6100F7B2    TRAPLON:  BSR PCRLF;! IS FOR BUS AND ADDRESS-TRAP
1945 FE124A   21FC00010001          MOVE.L STANDIO,IOFLAG;
              0546
1946 FE1252   6100EEEA              BSR.W INIACIAS;
1947 FE1256   46FC2200              MOVE.W $2200,SR;
1948 FE125A   6100F2F2              BSR PDATA;
1949 FE125E   6100F79A              BSR PCRLF;
1950 FE1262   4BFA0228              LEA.L ERRONPC,A5;! IS IN THIS CASE NEXT INSTR
1951 FE1266   6100F2E6              BSR PDATA;
1952 FE126A   7208                  MOVEQ.L 8,D1;
1953 FE126C   202F000E              MOVE.L 14(A7),D0;
1954 FE1270   21C005A4              MOVE.L D0,PCRG;
1955 FE1274   4E68                  MOVE.L USP,A0;
1956 FE1276   21C8059C              MOVE.L A0,USTP;
1957 FE127A   6100F748              BSR PRTNIB;! IS PC
1958 FE127E   6100F77A              BSR PCRLF;
1959 FE1282   4BFA0191              LEA.L ERRORACC,A5;
1960 FE1286   6100F2C6              BSR PDATA;
1961 FE128A   202F0006              MOVE.L 6(A7),D0;
1962 FE128E   7208                  MOVEQ.L 8,D1;
1963 FE1290   6100F732              BSR PRTNIB;! IS ACCESS ADDRESS
1964 FE1294   6100F764              BSR PCRLF;
1965 FE1298   6000EDEC              BRA.W WARMST;
1966
1967
1968
1969
1970 FE129C   2F0D          TRAPERR:  MOVE.L A5,-(A7);! ALL OTHER TRAPS
1971 FE129E   4BFA010A              LEA.L TTRAPERR,A5;
1972
1973 FE12A2   21FC00010001  TRAPALL:  MOVE.L STANDIO,IOFLAG;
              0546
1974 FE12AA   6100F74E              BSR PCRLF;
1975 FE12AE   46FC2200              MOVE.W $2200,SR;
1976 FE12B2   6100F29A              BSR PDATA;
1977 FE12B6   6100F742              BSR PCRLF;
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1978 FE12BA   4BFA01C8             LEA.L ERRORPC,A5;
1979 FE12BE   6100F28E             BSR PDATA;
1980 FE12C2   2A5F                 MOVEA.L (A7)+,A5;
1981 FE12C4   202F0002             MOVE.L 2(A7),D0;
1982 FE12C8   7208                 MOVEQ.L 8,D1;
1983 FE12CA   6100F6F8             BSR PRTNIB;! TO PRINT LAST PC
1984 FE12CE   6100F72A             BSR PCRLF;
1985 FE12D2   6100F0EE             BSR BREAKIN3;
1986 FE12D6   6000EDAE             BRA.W WARMST;
1987
1988
1989                       !* AND NOW SPECIAL CASES OF TRAPS USEFULL TO
1990                       !* KNOW WHAT KIND OF TRAP OCCURED
1991
1992 FE12DA   48F8FFFF055C ADDRESSE: MOVEM.L D0-D7/A0-A7,REGS;
1993 FE12E0   2F0D                 MOVE.L A5,-(A7);
1994 FE12E2   4BFA0123             LEA.L ERRORAD,A5;
1995 FE12E6   6000FF5E             BRA.W TRAPLON;
1996
1997 FE12EA   2F0D         ILLINSTR: MOVE.L A5,-(A7);
1998 FE12EC   4BFA0141             LEA.L ERRORIL,A5;
1999 FE12F0   60B0                 BRA.S TRAPALL;
2000
2001 FE12F2   2F0D         ZERODIVE: MOVE.L A5,-(A7);
2002 FE12F4   4BFA014D             LEA.L ERRORZE,A5;
2003 FE12F8   60A8                 BRA.S TRAPALL;
2004
2005 FE12FA   2F0D         OUTOFRAN: MOVE.L A5,-(A7);
2006 FE12FC   4BFA0151             LEA.L ERROROU,A5;
2007 FE1300   60A0                 BRA.S TRAPALL;
2008
2009 FE1302   2F0D         PRIVILEG: MOVE.L A5,-(A7);
2010 FE1304   4BFA015A             LEA.L ERRORPR,A5;
2011 FE1308   6098                 BRA.S TRAPALL;
2012
2013 FE130A   48F8FFFF055C BUSERR:   MOVEM.L D0-D7/A0-A7,REGS;
2014 FE1310   2F0D                 MOVE.L A5,-(A7);
2015 FE1312   4BFA0111             LEA.L ERROBUS,A5;
2016 FE1316   6000FF2E             BRA.W TRAPLON;
2017
2018
2019                       !** IS TO HANDLE NMI=PANIKBUTTOM  **
2020
2021                       NMIABO:
2022 FE131A   2F00                  MOVE.L D0,-(A7);
2023 FE131C   203C00050000          MOVE.L $50000,D0;
2024 FE1322   6106                  BSR.S  WAITD0;
2025 FE1324   201F                  MOVE.L (A7)+,D0;
2026 FE1326   6000F554              BRA.W  CONTROLC;
2027
2028
2029 FE132A   5380          WAITD0:  SUBQ.L 1,D0;
2030 FE132C   66FC                   BNE.S WAITD0;
2031 FE132E   4E75                   RTS;
2032
2033                       ! **  TABLE OF REGISTERNAMES  **
2034
```

```
2035 FE1330   304431443244 REGTAB:   DC '0D1D2D3D4D5D6D7D';
              334434443544
              36443744
2036 FE1340   304131413241           DC '0A1A2A3A4A5A6ASS';
              334134413541
              36415353
2037 FE1350   535552534350           DC 'SURSCP';
2038 FE1356   304231423242 BPTAB:    DC '0B1B2B3B4B5B6B7B';
              334234423542
              36423742
2039
2040                       !**  SOME MESSAGES  **
2041
2042 FE1366   425245414B20 TBRP: DC 'BREAK AT :'; DC.B 4;
              4154203A
2042 FE1370   04
2043 FE1371   53414D203638 TRES: DC 'SAM 68K  MONITOR ';DC.L MONVER; DC.B 4;
              4B20204F4E
              49544F5220
2043 FE1382   56322E33
2043 FE1386   04
2044 FE1387   425245414B50 MESSACT:DC 'BREAKPOINTS ACTIVATED :';DC.B 4;
              4F494E545320
              414354495641
              544544203A
2044 FE139E   04
2045 FE139F   57484154203F TWHAT:DC   'WHAT ?';DC.B 4;
2045 FE13A5   04
2046 FE13A6   08200804     TDEL: DC.L $08200804; ! DELETE CHAR.
2047 FE13AA   545241502045 TTRAPERR: DC 'TRAP ERROR !'; DC.B 4;
              52524F522021
2047 FE13B6   04
2048 FE13B7   434845434B53 MESSCHER: DC 'CHECKSUM ERROR !'; DC.B 4;
              554D20455252
              4F522021
2048 FE13C7   04
2049 FE13C8   4D43523E     MESSMCR:  DC 'MCR>';DC.B 4;
2049 FE13CC   04
2050 FE13CD   464F554E4420 MESSFOUN: DC 'FOUND START LOAD'; DC.B 4;
              535441525420
              4C4F4144
2050 FE13DD   04
2051 FE13DE   46494C452044 MESFILED: DC 'FILE DEFINITION ?';DC.B 4;
              4546494E4954
              494F4E203F
2051 FE13EF   04
2052 FE13F0   4C4153542049 MESSIGNO: DC 'LAST INPUT IGNORED'; DC.B 4;
              4E5055542049
              474E4F524544
2052 FE1402   04
2053 FE1403   454E44       MESSEND:  DC 'END'; DC.B 4;
2053 FE1406   04
2054 FE1407   414444524553 ERRORAD:  DC 'ADDRESS ERROR';DC.B 4;
              532045524F
              52
2054 FE1414   04
2055 FE1415   414343455353 ERRORACC: DC 'ACCESS ADDRESS ';DC.B 4;
```

```
            204144445245
            535320
2055 FE1424 04
2056 FE1425 425553204552 ERROBUS:  DC 'BUS ERROR';DC.B 4;
            524F52
2056 FE142E 04
2057 FE142F 494C4C454741 ERRORIL:  DC 'ILLEGAL INSTRUCTION';DC.B 4;
            4C20494E5354
            525543544494F
            4E
2057 FE1442 04
2058 FE1443 5A455524F2044 ERRORZE:  DC 'ZERO DIVIDE';DC.B 4;
            4956494445
2058 FE144E 04
2059 FE144F 43484B204F55 ERROROU:  DC 'CHK OUT OF RANGE';DC.B 4;
            54204F462052
            414E4745
2059 FE145F 04
2060 FE1460 505249564956 ERRORPR:  DC 'PRIVILEGE VIOLATION';DC.B 4;
            454745205649
            4F4C4154494F
            4E
2060 FE1473 04
2061 FE1474 41424F525445 ERRORAB:  DC 'ABORTED VIA MCR';DC.B 4;
            442056494120
            4D4352
2061 FE1483 04
2062 FE1484 204154205043 ERRORPC:  DC ' AT PC ';DC.B 4;
            20
2062 FE148B 04
2063 FE148C 204E45585420 ERRONPC:  DC ' NEXT PC '; DC.B 4;
            504320
2063 FE1495 04
2064 FE1496 444444444444 MESDATEN: DC 'DDDDDDDDAAAAAAASUSP';DC.B 4;
            444441414141
            414141535553
            50
2064 FE14A9 04
2065 FE14AA 303132333435 MESNUMM:  DC '01234567012345SSRC';DC.B 4;
            363730313233
            343536535352
            43
2065 FE14BD 04
2066 FE14BE 303132333435 MES1234:  DC '0123456789ABCDEF';DC.B 4;
            363738394142
            43444546
2066 FE14CE 04
2067 FE14CF 424F4F542045 BOOTERR:  DC 'BOOT ERROR !';DC.B 4;
            52524F522021
2067 FE14DB 04
2068
2069                               EVEN;
2070 FE14DC 5245           COMTAB: DC.W 'RE';! DISPLAY REGISTERS
2071 FE14DE 00FE055E               DC.L #OUTREG;
2072 FE14E2 524C                   DC.W 'RL';! REGISTERLIST
2073 FE14E4 00FE0BBE               DC.L #LISTREG;
2074 FE14E8 494F                   DC.W 'IO';! IO-LIST
```

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2075 FE14EA    00FE0C28            DC.L #IOLIST;
2076 FE14EE    5354                DC.W 'ST';! SINGLE STEP
2077 FE14F0    00FE030E            DC.L #STEP;
2078 FE14F4    484F                DC.W 'HO';! HOST MESSAGE
2079 FE14F6    00FE0776            DC.L #HOSTTR;
2080 FE14FA    5452                DC.W 'TR';!  TRACE
2081 FE14FC    00FE0316            DC.L #TRACE;
2082 FE1500    474F                DC.W 'GO';! GO COMMAND
2083 FE1502    00FE046E            DC.L #GOCOM;
2084 FE1506    4341                DC.W 'CA';! CALL COMMAND
2085 FE1508    00FE043E            DC.L #CALLCOM;
2086 FE150C    5444                DC.W 'TD';! TRACE DISPLAY WITH CLEAR SCREEN
2087 FE150E    00FE045E            DC.L #TDCOM;
2088 FE1512    5443                DC.W 'TC';! NO CLEAR SCREEN
2089 FE1514    00FE0468            DC.L #TC;
2090 FE1518    4D4F                DC.W 'MO';
2091 FE151A    00FE0A3A            DC.L #MOVECOM;
2092 FE151E    4649                DC.W 'FI';
2093 FE1520    00FE0A52           .DC.L #FILLCOM;
2094 FE1524    5054                DC.W 'PT';
2095 FE1526    00FE121E            DC.L #PACKTAPE;
2096 FE152A    4F50                DC.W 'OP';! OPEN MEMORY
2097 FE152C    00FE0A8C            DC.L #MEMORY;
2098 FE1530    4455                DC.W 'DU';!  MEMORY DUMP
2099 FE1532    00FE0CAC            DC.L #DUMPMEM;
2100 FE1536    5341                DC.W 'SA';
2101 FE1538    00FE10B8            DC.L #SAVEMOCO;! RECORD MOTOROLACODE
2102 FE153C    4C4F                DC.W 'LO';! LOAD MOTOROLA-CODE
2103 FE153E    00FE0DB6            DC.L #MOLOAD;
2104 FE1542    4440                DC.W 'D@';! SET DATA-REGISTER
2105 FE1544    00FE0B6E            DC.L #DATREG;
2106 FE1548    4140                DC.W 'A@';! SET ADDRESS-REGISTER
2107 FE154A    00FE0B4C            DC.L #ADREG;
2108 FE154E    5353                DC.W 'SS';! SET SUPERVISOR-ST.P.
2109 FE1550    00FE0B56            DC.L #STACKP;
2110 FE1554    5553                DC.W 'US';! SET USER-STACKP.
2111 FE1556    00FE0B5C            DC.L #USTACKP;
2112 FE155A    5352                DC.W 'SR';! SET STATUS REGISTER
2113 FE155C    00FE0B62            DC.L #STATREG;
2114 FE1560    5043                DC.W 'PC';! SET PROGRAM COUNTER
2115 FE1562    00FE0B68            DC.L #PROCOUN;
2116 FE1566    4240                DC.W 'B@';! SET BREAKPOINTS
2117 FE1568    00FE03FA            DC.L #BREAKP;
2118 FE156C    4442                DC.W 'DB';! DISPLAY BREAKPOINTS
2119 FE156E    00FE0414            DC.L #DISBP;
2120 FE1572    4342                DC.W 'CB';! CLEAR BREAKPOINTS
2121 FE1574    00FE03DA            DC.L #CLEARBP;
2122
2123
2124 FE1578    4954                DC.W 'IT';
2125 FE157A    00FE192E            DC.L #DELTAP;! DELETE TAPE
2126                        /*      DC.W 'ED';! EDITOR WARMSTART
2127                                DC.L #XEDITOR;
2128                                DC.W 'SC';
2129                                DC.L #XSCREENE;
2130                                DC.W 'AS';! ASSEMBLER EDITOR TEXT
2131                                DC.L #ASSEMBO;
```

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2132                            */
2133 FE157E    424F               DC.W 'BO';
2134 FE1580    00FE15E8           DC.L #STARTBOOT;
2135
2136 FE1584    5445               DC.W 'TE';! TEST ROUTINEN
2137 FE1586    00FE2978           DC.L #TESTALLE;
2138
2139
2140 FE158A    FFFF               DC.W -1;! END OF TABLE
3547                              LIST 4;
3548
3549                            /*************************************************
3550                            ****                                         ****
3551                            ****        VIDEO-TREIBERROUTINEN FUER       ****
3552                            ****               SAM 68K                   ****
3553                            ****                                         ****
3554                            ****              VERSION  1.1               ****
3555                            ****              (c) kws 1983               ****
3556                            ****                                         ****
3557                            *************************************************
3558                            ****                                         ****
3559                            ****  DER VORLIEGENDE TREIBER BEDIENT SOWOHL DIE  ****
3560                            ****  TASTATUR, DIE AN SAM 68K ANGESCHLOSSEN IST, ****
3561                            ****  ALS AUCH DEN VIDEOTEIL VON SAM 68K ZUR DAR- ****
3562                            ****  STELLUNG VON SCHRIFT UND ZUR AUSFUEHRUNG    ****
3563                            ****  VON SPEZIELLEN FUNKTIONEN.                  ****
3564                            ****                                         ****
3565                            *************************************************
3566                            *                                               *
3567                            *     BASISADRESSE DES VIDEO-RAMS:              *
3568                            *                                               *
3569                            *       $38000 ODER $F18000, JE NACH STELLUNG   *
3570                            *       DES ENTSPRECHENDEN JUMPERS              *
3571                            *                                               *
3572                            *     FOLGENDE FUNKTIONEN STEHEN ZUR VERFUEGUNG:*
3573                            *                                               *
3574                            *     ZEICHEN           FUNKTION                *
3575                            *     ------------------------------------------*
3576                            *     $0D = ^M = CR     CARRIAGE RETURN         *
3577                            *     $0A = ^J = LF     LINE FEED               *
3578                            *     $08 = ^H = BS     BACKSPACE               *
3579                            *     $0B = ^K = VT     CURSOR HOME UP          *
3580                            *     $02 = ^B = STX    CURSOR HOME DOWN        *
3581                            *     $0C = ^L = FF     CURSOR HOME/CLEAR SCREEN*
3582                            *     $0F = ^O = SI     CURSOR UP               *
3583                            *     $0E = ^N = SO     CURSOR RIGHT            *
3584                            *     $05 = ^E = ENQ    ERASE TILL END OF LINE  *
3585                            *     $10 = ^P = DLE    ERASE TILL END OF PAGE  *
3586                            *     $1B = ESC         LEITET ESCAPE SEQUENZ EIN*
3587                            *                                               *
3588                            *     ES BEWIRKT:                               *
3589                            *     ESC A = 1B41      US-ASCII ZEICHENSATZ    *
3590                            *     ESC B = 1B42      CURSOR EINSCHALTEN      *
3591                            *     ESC D = 1B44      DEUTSCHER ZEICHENSATZ   *
3592                            *     ESC C = 1B43      ABSOLUTE CURSORADRESSIERUNG*
3593                            *     ESC E = 1B45      CURSOR AUSSCHALTEN      *
3594                            *     ESC F = 1B46      INVERTIEREN EINSCHALTEN *
```

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3595                        *     ESC G = 1B47       INVERTIEREN AUSSCHALTEN   *
3596                        *                                                  *
3597                        *                                                  *
3598                        *                                                  *
3599                        ****************************************************/
3600
3601                                BASE (A0);
3602     0                  ZEILE:   DS.B   1;
3603     1                  SPALTE:  DS.B   1;
3604     2                  ESCSW:   DS.B   1;
3605     3                  ESCOUNT: DS.B   1;
3606     4                  DEUTSCH: DS.B   1;
3607     5                  CURSOFF: DS.B   1;
3608     6                  INVFLG:  DS.B   1;
3609
3610
3611                        CURSORH: EQU    14;
3612                        CURSORL: EQU    15;
3613                        FSTADRH: EQU    12;
3614                        FSTADRL: EQU    13;
3615
3616
3617
3618                        !
3619                        !  INITIALISIERE CRT-CONTROLLER
3620                        !
3621 FE2030    48E7FFFE    INITCRT: MOVEM.L D0-D7/A0-A6,-(A7);
3622 FE2034    6100004A            BSR     GETPARAM;
3623 FE2038    42A80000            CLR.L   ZEILE;          !LOESCHE ZEILE, SPALTE...
3624                                                        !...ESCSW, ESCOUNT
3625 FE203C    42680004            CLR.W   DEUTSCH;        !LOESCHE DEUTSCH, CURSOFF
3626 FE2040    42280006            CLR     INVFLG;
3627 FE2044    4280                CLR.L   D0;
3628 FE2046    323C000F            MOVE.W  15,D1;
3629 FE204A    43FA0068            LEA.L   TAB,A1;
3630 FE204E    11C08A01    LOOP:   MOVE.B  D0,CRTADR;      !INITIALISIERE CRT-CONTR.
3631 FE2052    5280                ADDQ.L  1,D0;
3632 FE2054    11D98A0J            MOVE.B  (A1)+,CRTREG;
3633 FE2058    51C9FFF4            DBF     D1,LOOP;
3634
3635 FE205C    6100000C            BSR     CLRPAGE;        !LOESCHE BILDSEITE
3636 FE2060    61000218            BSR.W   INVERT;         !CURSOR EINSCHALTEN
3637 FE2064    4CDF7FFF            MOVEM.L (A7)+,D0-D7/A0-A6;
3638 FE2068    4E75                RTS;
3639
3640                        !
3641                        ! SUBROUTINE ZUM LOESCHEN DER BILDSEITE
3642                        !   INPUT: STARTADRESSE DER BILDSEITE IN A6
3643                        !
3644                        CLRPAGE:
3645 FE206A    48E74004            MOVEM.L D1/A5,-(A7);
3646 FE206E    2A4E                MOVE.L  A6,A5;
3647 FE2070    323C0FFF            MOVE.W  4095,D1;        !16 KB = 4096 LONGWORDS
3648 FE2074    429D        C1:     CLR.L   (A5)+;
3649 FE2076    51C9FFFC            DBF     D1,C1;
3650 FE207A    4CDF2002            MOVEM.L (A7)+,D1/A5;
3651 FE207E    4E75                RTS;
```

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3652
3653                    !
3654                    ! SUBROUTINE: LAEDT DIE ANFANGSADRESSE DER BILDSEITE -> A6
3655                    !              UND DIE ANFANGSADRESSE DER VARIABLEN -> A0
3656                    !
3657                    GETPARAM::
3658 FE2080  41F804F8          LEA.L   VARIABLES,A0;
3659 FE2084  4DF900B8000       LEA.L   VIDEORAM5,A6;
3660 FE208A  1E388901          MOVE.B  PIADRA,D7;
3661 FE208E  CE3C0060          AND.B   $60,D7;
3662 FE2092  671E              BEQ     RET;
3663 FE2094  4DF900038000      LEA.L   VIDEORAMN,A6;
3664 FE209A  BE3C0060          CMP.B   $60,D7;
3665 FE209E  6712              BEQ     RET;
3666 FE20A0  4DF900F18000      LEA.L   VIDEORAMV,A6;
3667 FE20A6  BE3C0040          CMP.B   $40,D7;
3668 FE20AA  6706              BEQ     RET;
3669 FE20AC  4DF900078000      LEA.L   VIDEORAM2,A6;
3670 FE20B2  4E75              RET:    RTS;;
3671                    !
3672                    ! TABELLE: ENTHAELT DIE WERTE ZUR CRT-CONTR.  INITIALISIERUNG
3673                    !
3674 FE20B4  2A202333          TAB:    DC.L    $2A202333;
3675 FE20B8  25072021          DC.L    $25072021;
3676 FE20BC  00070001          DC.L    $00070001;
3677 FE20C0  38000000          DC.L    $38000000;
3678
3679
3680                    !-------------------------------------------------------------!
3681                    ! SUBROUTINE ZUR AUSGABE EINES BUCHSTABENS AUF DEM BILDSCHIRM. !
3682                    !          ERKENNT CONTROL-ZEICHEN UND ESCAPE-SEQUENZEN UND   !
3683                    !          FUEHRT DIE ENTSPRECHENDEN FUNKTIONEN AUS.          !
3684                    !                                                             !
3685                    !          INPUT: BUCHSTABE ODER STEUERZEICHEN IN D0.B        !
3686                    !          ALLE REGISTER BLEIBEN ERHALTEN                     !
3687                    !-------------------------------------------------------------!
3688
3689 FE20C4  48E7FFFE      OUTCHAR: MOVEM.L D0-D7/A0-A6,-(A7);
3690 FE20C8  6100FFB6              BSR     GETPARAM;
3691 FE20CC  4A280002              TST.B   ESCSW;          !ESCAPE FLAG AN?
3692 FE20D0  660003C6              BNE.W   ESON;
3693 FE20D4  B03C001F              CMP.B   $1F,D0;         !CONTROL CHARACTER?
3694 FE20D8  6250                  BHI.S   CHROUT;         !NEIN: GEBE BUCHSTABE AUS
3695
3696                    ! SUCHE, OB ES EIN SPEZIELLES CONTROLZEICHEN IST
3697 FE20DA  43FA001A          LEA.L   JMPTAB,A1;
3698 FE20DE  C07C00FF          GOTO:   AND.W   $00FF,D0;
3699 FE20E2  3219              GOTO1:  MOVE.W  (A1)+,D1;       !HOLE OFFSET
3700 FE20E4  3419              MOVE.W  (A1)+,D2;       !HOLE STEUERZEICHEN
3701 FE20E6  6704              BEQ     OUTC2;          !STOP, WENN ENDE DER TABELLE
3702 FE20E8  B042              CMP.W   D2,D0;
3703 FE20EA  66F6              BNE     GOTO1;          !SUCHE WEITER
3704 FE20EC  4EFB10FE          OUTC2:  JMP     (OUTC2,D1.W);   !FUEHRE FUNKTION AUS
3705
3706 FE20F0  4CDF7FFF          RETURN: MOVEM.L (A7)+,D0-D7/A0-A6;
3707 FE20F4  4E75              RTS;
3708
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```
3709 FE20F6   0224        JMPTAB:  DC.W    CARRIAGERETURN-OUTC2; DC.W $000D;
3709 FE20F8   000D
3710 FE20FA   0234                 DC.W    LINEFEED-OUTC2;      DC.W $000A;
3710 FE20FC   000A
3711 FE20FE   0258                 DC.W    BACKSPACE-OUTC2;     DC.W $0008;
3711 FE2100   0008
3712 FE2102   029C                 DC.W    HOME-OUTC2;          DC.W $000B;
3712 FE2104   000B
3713 FE2106   02B0                 DC.W    HOMEDOWN-OUTC2;      DC.W $0002;
3713 FE2108   0002
3714 FE210A   02C6                 DC.W    CLEARSCREEN-OUTC2;   DC.W $000C;
3714 FE210C   000C
3715 FE210E   0286                 DC.W    CURSORUP-OUTC2;      DC.W $000F;
3715 FE2110   000F
3716 FE2112   026E                 DC.W    CURSORRIGHT-OUTC2;   DC.W $000E;
3716 FE2114   000E
3717 FE2116   02D6                 DC.W    ERATEOL-OUTC2;       DC.W $0005;
3717 FE2118   0005
3718 FE211A   0338                 DC.W    ERATEOP-OUTC2;       DC.W $0010;
3718 FE211C   0010
3719 FE211E   03A2                 DC.W    ESCAPE-OUTC2;        DC.W $001B;
3719 FE2120   001B
3720 FE2122   0388                 DC.W    BELL-OUTC2;          DC.W $0007;
3720 FE2124   0007
3721 FE2126   0004                 DC.W    RETURN-OUTC2;        DC.W $0000;
3721 FE2128   0000
3722
3723
3724
3725                               !
3726                               ! GEBE BUCHSTABE IN D0.B AN DER POSITION DES CURSORS
3727                               !      AUF DEM BILDSCHIRM AUS
3728                               !
3729 FE212A   4A280004    CHROUT:  TST.B   DEUTSCH;          !GERMAN CHAR.-SET?
3730 FE212E   6710                 BEQ.S   CHROUT1;          !NO: OK
3731 FE2130   43FA0424             LEA.L   GTAB,A1;
3732 FE2134   B019        CHR01:   CMP.B   (A1)+,D0;
3733 FE2136   6604                 BNE.S   CHROUT02;         !IST SPEZIALZEICHEN
3734 FE2138   1019                 MOVE.B  (A1)+,D0;         !HOLE SPEZIALOFFSET
3735 FE213A   6004                 BRA.S   CHROUT1;
3736 FE213C   4A19        CHROUT02: TST.B  (A1)+;
3737 FE213E   66F4                 BNE.S   CHR01;
3738                               ! ZEICHEN AUSGEBEN
3739 FE2140   6100008E    CHROUT1: BSR.W   GETBYTEPOS;
3740 FE2144   7809                 MOVEQ.L 9,D4;             !10 RASTERZEILEN
3741 FE2146   7640                 MOVEQ.L 64,D3;            !ZEILENABSTAND IN BYTE
3742 FE2148   4A02                 TST.B   D2;
3743 FE214A   6B28                 BMI     CASE0;
3744 FE214C   6742                 BEQ     CASE1;
3745 FE214E   5342                 SUBQ.W  1,D2;
3746 FE2150   67000076             BEQ.W   CASE2;
3747
3748 FE2154   7AC0        CASE3:   MOVEQ.L $FFFFFFC0,D5;     ! = MOVEQ.L $C0,D5
3749 FE2156   CB15                 AND.B   D5,(A5);
3750 FE2158   DBC3                 ADD.L   D3,A5;            !ERSTE ZEILE DES BUCHSTABENS
3751 FE215A   1215        CASE30:  MOVE.B  (A5),D1;
3752 FE215C   C205                 AND.B   D5,D1;
```

```
3753 FE215E    141C                MOVE.B  (A4)+,D2;
3754 FE2160    E40A                LSR.B   2,D2;
3755 FE2162    D202                ADD.B   D2,D1;
3756 FE2164    1A81                MOVE.B  D1,(A5);
3757 FE2166    DBC3                ADD.L   D3,A5;
3758 FE2168    51CCFFF0            DBF     D4,CASE30;
3759 FE216C    610000D2            BSR.W   NEWCURSOR;
3760 FE2170    6000FF7E            BRA.W   RETURN;
3761
3762 FE2174    7A03        CASE0:  MOVEQ.L 3,D5;
3763 FE2176    CB15                AND.B   D5,(A5);
3764 FE2178    DBC3                ADD.L   D3,A5;
3765 FE217A    1215        CASE00: MOVE.B  (A5),D1;
3766 FE217C    C205                AND.B   D5,D1;
3767 FE217E    D21C                ADD.B   (A4)+,D1;
3768 FE2180    1A81                MOVE.B  D1,(A5);
3769 FE2182    DBC3                ADD.L   D3,A5;
3770 FE2184    51CCFFF4            DBF     D4,CASE00;
3771 FE2188    610000B6            BSR.W   NEWCURSOR;
3772 FE218C    6000FF62            BRA.W   RETURN;
3773
3774 FE2190    021506FC    CASE1:  ANDI.B  $FC,(A5);
3775 FE2194    022D000F0001        ANDI.B  $0F,1(A5);
3776 FE219A    DBC3                ADD.L   D3,A5;
3777 FE219C    3A3CFC0F            MOVE.W  $FFFFFC0F,D5;
3778 FE21A0    1215        CASE10: MOVE.B  (A5),D1;
3779 FE21A2    E149                LSL.W   8,D1;
3780 FE21A4    122D0001            MOVE.B  1(A5),D1;
3781 FE21A8    C245                AND.W   D5,D1;
3782 FE21AA    4242                CLR.W   D2;
3783 FE21AC    141C                MOVE.B  (A4)+,D2;
3784 FE21AE    E54A                LSL.W   2,D2;
3785 FE21B0    D242                ADD.W   D2,D1;
3786 FE21B2    1B410001            MOVE.B  D1,1(A5);
3787 FE21B6    E049                LSR.W   8,D1;
3788 FE21B8    1A81                MOVE.B  D1,(A5);
3789 FE21BA    DBC3                ADD.L   D3,A5;
3790 FE21BC    51CCFFE2            DBF     D4,CASE10;
3791 FE21C0    6100007E            BSR.W   NEWCURSOR;
3792 FE21C4    6000FF2A            BRA.W   RETURN;
3793
3794 FE21C8    021500F0    CASE2:  ANDI.B  $F0,(A5);
3795 FE21CC    022D003F0001        ANDI.B  $3F,1(A5);
3796 FE21D2    DBC3                ADD.L   D3,A5;
3797 FE21D4    3A3CF03F            MOVE.W  $FFFFF03F,D5;
3798 FE21D8    1215        CASE20: MOVE.B  (A5),D1;
3799 FE21DA    E149                LSL.W   8,D1;
3800 FE21DC    122D0001            MOVE.B  1(A5),D1;
3801 FE21E0    C245                AND.W   D5,D1;
3802 FE21E2    4242                CLR.W   D2;
3803 FE21E4    141C                MOVE.B  (A4)+,D2;
3804 FE21E6    E94A                LSL.W   4,D2;
3805 FE21E8    D242                ADD.W   D2,D1;
3806 FE21EA    1B410001            MOVE.B  D1,1(A5);
3807 FE21EE    E049                LSR.W   8,D1;
3808 FE21F0    1A81                MOVE.B  D1,(A5);
3809 FE21F2    DBC3                ADD.L   D3,A5;
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3810 FE21F4   51CCFFE2            DBF     D4,CASE20;
3811 FE21F8   61000046            BSR.W   NEWCURSOR;
3812 FE21FC   6000FEF2            BRA.W   RETURN;
3813
3814                      !
3815                      ! SUBROUTINE ZUM BERECHNEN DER ANFANGSADRESSE DES
3816                      !           BUCHSTABENS AUF DER BILDSEITE ( -> A5 )
3817                      !           UND DES OFFSETS IM CHARACTER-GENERATOR
3818                      !
3819                      GETBYTEPOS:
3820 FE2200   7200                MOVEQ.L 0,D1;
3821 FE2202   12280001            MOVE.B  SPALTE,D1;
3822 FE2206   3401                MOVE.W  D1,D2;
3823 FE2208   C47C0003            AND.W   3,D2;           !IST FALL NR.
3824 FE220C   E449                LSR.W   2,D1;           !SPALTE/4....
3825 FE220E   C2FC0003            MULU.W  3,D1;           !..*3..
3826 FE2212   5342                SUBQ.W  1,D2;
3827 FE2214   6B02                BMI     6B0;
3828 FE2216   D242                ADD.W   D2,D1;          !...+ EXTRA
3829 FE2218   7600          6B0:  MOVEQ.L 0,D3;
3830 FE221A   16280000            MOVE.B  ZEILE,D3;
3831 FE221E   C6FC0280            MULU.W  640,D3;
3832 FE2222   D243                ADD.W   D3,D1;          !IST BYTE OFFSET...
3833                                                      !IN DER ZEILE
3834 FE2224   48C1                EXT.L   D1;
3835 FE2226   2A4E                MOVE.L  A6,A5;
3836 FE2228   DBC1                ADD.L   D1,A5;          !(A5) ZEIGT AUF 1. BYTE
3837                                                      !DES BUCHSTABENS
3838 FE222A   49FA033C            LEA.L   CHARS,A4;
3839 FE222E   C0BC000000FF        AND.L   $FF,D0;
3840 FE2234   903C0020            SUB.B   $20,D0;         !KEINE CONTROL CHARACTERS
3841 FE2238   C0FC000A            MULU.W  10,D0;
3842 FE223C   D9C0                ADD.L   D0,A4;          !(A4) ZEIGT AUF 1. BYTE
3843                                                      !IM CHARACTER-GENERATOR
3844 FE223E   4E75                RTS;
3845                      !
3846                      ! SUBROUTINE: BEWEGT DEN CURSOR UM EINE STELLE WEITER
3847                      !             UND SCHALTET IHN EIN
3848                      !
3849                      NEWCURSOR:
3850 FE2240   4A280006            TST     INVFLG;         !INVERTIEREN ?
3851 FE2244   6704                BEQ     NEW1;
3852 FE2246   6100003A            BSR     INVERT1;
3853 FE224A   0C28004E0001  NEW1: CMPI.B  78,SPALTE;
3854 FE2250   631E                BLS     NEW2;
3855 FE2252   42280001            CLR.B   SPALTE;
3856 FE2256   52280000            ADDQ.B  1,ZEILE;
3857 FE225A   0C2800180000        CMPI.B  24,ZEILE;
3858 FE2260   6312                BLS     NEW3;
3859 FE2262   53280000            SUBQ.B  1,ZEILE;
3860 FE2266   610001EC            BSR.W   SCROLL;
3861 FE226A   6100000E            BSR.W   INVERT;
3862 FE226E   4E75                RTS;
3863
3864 FE2270   52280001      NEW2: ADDQ.B  1,SPALTE;
3865 FE2274   61000004      NEW3: BSR     INVERT;
3866 FE2278   4E75                RTS;
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3867
3868                    !
3869                    ! SUBROUTINE ZUM INVERTIEREN DES BUCHSTABENFELDES AUF DEM
3870                    !           DER CURSOR STEHT
3871                    !
3872 FE227A   4A280005  INVERT:  TST.B   CURSOFF;          !TUE NICHTS, WENN...
3873 FE227E   6702              BEQ     INVERT1;         !...DER CURSOR...
3874 FE2280   4E75              RTS;                     !...AUSGESCHALTET IST
3875 FE2282   6100FF7C  INVERT1: BSR.W   GETBYTEPOS;
3876 FE2286   780A              MOVEQ.L 10,D4;           !11 RASTERZEILEN
3877 FE2288   7640              MOVEQ.L 64,D3;           !ABSTAND RASTERZEILEN
3878                                                     !IN BYTE
3879 FE228A   4A02              TST.B   D2;
3880 FE228C   6B1E              BMI     INV0;
3881 FE228E   6734              BEQ     INV1;
3882 FE2290   5342              SUBQ.W  1,D2;
3883 FE2292   6756              BEQ     INV2;
3884
3885 FE2294   7AC0      INV3:   MOVEQ.L $FFFFFFC0,D5;
3886 FE2296   1215      INV31:  MOVE.B  (A5),D1;
3887 FE2298   1401              MOVE.B  D1,D2;
3888 FE229A   C205              AND.B   D5,D1;
3889 FE229C   8405              OR.B    D5,D2;
3890 FE229E   4602              NOT.B   D2;
3891 FE22A0   D202              ADD.B   D2,D1;
3892 FE22A2   1A81              MOVE.B  D1,(A5);
3893 FE22A4   DBC3              ADD.L   D3,A5;
3894 FE22A6   51CCFFEE          DBF     D4,INV31;
3895 FE22AA   4E75              RTS;
3896
3897 FE22AC   7A03      INV0:   MOVEQ.L 3,D5;
3898 FE22AE   1215      INV01:  MOVE.B  (A5),D1;
3899 FE22B0   1401              MOVE.B  D1,D2;
3900 FE22B2   C205              AND.B   D5,D1;
3901 FE22B4   8405              OR.B    D5,D2;
3902 FE22B6   4602              NOT.B   D2;
3903 FE22B8   D202              ADD.B   D2,D1;
3904 FE22BA   1A81              MOVE.B  D1,(A5);
3905 FE22BC   DBC3              ADD.L   D3,A5;
3906 FE22BE   51CCFFEE          DBF     D4,INV01;
3907 FE22C2   4E75              RTS;
3908
3909 FE22C4   3A3CFC0F  INV1:   MOVE.W  $FFFFFC0F,D5;
3910 FE22C8   1215      INV11:  MOVE.B  (A5),D1;
3911 FE22CA   E149              LSL.W   8,D1;
3912 FE22CC   122D0001          MOVE.B  1(A5),D1;
3913 FE22D0   3401              MOVE.W  D1,D2;
3914 FE22D2   C245              AND.W   D5,D1;
3915 FE22D4   8445              OR.W    D5,D2;
3916 FE22D6   4642              NOT.W   D2;
3917 FE22D8   D242              ADD.W   D2,D1;
3918 FE22DA   1B410001          MOVE.B  D1,1(A5);
3919 FE22DE   E049              LSR.W   8,D1;
3920 FE22E0   1A81              MOVE.B  D1,(A5);
3921 FE22E2   DBC3              ADD.L   D3,A5;
3922 FE22E4   51CCFFE2          DBF     D4,INV11;
3923 FE22E8   4E75              RTS;
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3924
3925 FE22EA    3A3CF03F      INV2:    MOVE.W  $FFFFF03F,D5;
3926 FE22EE    1215          INV21:   MOVE.B  (A5),D1;
3927 FE22F0    E149                   LSL.W   8,D1;
3928 FE22F2    122D0001               MOVE.B  1(A5),D1;
3929 FE22F6    3401                   MOVE.W  D1,D2;
3930 FE22F8    C245                   AND.W   D5,D1;
3931 FE22FA    8445                   OR.W    D5,D2;
3932 FE22FC    4642                   NOT.W   D2;
3933 FE22FE    D242                   ADD.W   D2,D1;
3934 FE2300    1B410001               MOVE.B  D1,1(A5);
3935 FE2304    E049                   LSR.W   8,D1;
3936 FE2306    1A81                   MOVE.B  D1,(A5);
3937 FE2308    DBC3                   ADD.L   D3,A5;
3938 FE230A    51CCFFDE               DBF     D4,INV2;
3939 FE230E    4E75                   RTS;
3940
3941                          !
3942                          ! SONDERFUNKTIONEN, DIE MIT CONTROL CHARACTERS
3943                          !      ' GESTEUERT WERDEN
3944                          !
3945                          CARRIAGERETURN:
3946 FE2310    6100FF68                 BSR.W   INVERT;
3947 FE2314    42280001                 CLR.B   SPALTE;
3948 FE2318    6100FF60                 BSR     INVERT;
3949 FE231C    6000FDD2                 BRA.W   RETURN;
3950
3951                          LINEFEED:
3952 FE2320    6100FF58               BSR.W   INVERT;
3953 FE2324    0C2800180000           CMPI.B  24,ZEILE;
3954 FE232A    670C                   BEQ.S   LF1;
3955 FE232C    52280000               ADDQ.B  1,ZEILE;
3956 FE2330    6100FF48               BSR     INVERT;
3957 FE2334    6000FDBA               BRA.W   RETURN;
3958 FE2338    6100011A      LF1:     BSR     SCROLL;
3959 FE233C    6100FF3C               BSR.W   INVERT;
3960 FE2340    6000FDAE               BRA.W   RETURN;
3961
3962                          BACKSPACE:
3963 FE2344    4A280001               TST.B   SPALTE;
3964 FE2348    670C                   BEQ.S   BS2;
3965 FE234A    6100FF2E               BSR.W   INVERT;
3966 FE234E    53280001               SUBQ.B  1,SPALTE;
3967 FE2352    6100FF26               BSR.W   INVERT;
3968 FE2356    6000FD98      BS2:     BRA.W   RETURN;
3969
3970                          CURSORRIGHT:
3971 FE235A    0C28004E0001           CMPI.B  78,SPALTE;
3972 FE2360    620C                   BHI.S   R2;
3973 FE2362    6100FF16               BSR.W   INVERT;
3974 FE2366    52280001               ADDQ.B  1,SPALTE;
3975 FE236A    6100FF0E               BSR.W   INVERT;
3976 FE236E    6000FD80      R2:      BRA.W   RETURN;
3977
3978                          CURSORUP:
3979 FE2372    4A280000               TST.B   ZEILE;
3980 FE2376    670C                   BEQ.S   UP2;
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3981 FE2378   6100FF00          BSR.W   INVERT;
3982 FE237C   53280000          SUBQ.B  1,ZEILE;
3983 FE2380   6100FEF8          BSR     INVERT;
3984 FE2384   6000FD6A    UP2:  BRA.W   RETURN;
3985
3986 FE2388   6100FEF0    HOME: BSR.W   INVERT;
3987 FE238C   42280000          CLR.B   ZEILE;
3988 FE2390   42280001          CLR.B   SPALTE;
3989 FE2394   6100FEE4          BSR.W   INVERT;
3990 FE2398   6000FD56          BRA.W   RETURN;
3991
3992                    HOMEDOWN:
3993 FE239C   6100FEDC          BSR.W   INVERT;
3994 FE23A0   117C00180000      MOVE.B  24,ZEILE;
3995 FE23A6   42280001          CLR.B   SPALTE;
3996 FE23AA   6100FECE          BSR.W   INVERT;
3997 FE23AE   6000FD40          BRA.W   RETURN;
3998
3999                    CLEARSCREEN:
4000 FE23B2   6100FCB6          *BSR.W  CLRPAGE;
4001 FE23B6   42680000          CLR.W   ZEILE;          !CLEAR ZEILE+SPALTE
4002 FE23BA   6100FEBE          BSR     INVERT;         !CURSOR EINSCHALTEN
4003 FE23BE   6000FD30          BRA.W   RETURN;
4004
4005                    ! LOESCHE BIS ZUM ENDE DER ZEILE
4006                    !       AB CURSOR POSITION
4007                    ERATEOL:
4008 FE23C2   61000006          BSR     ERASE;
4009 FE23C6   6000FD28          BRA.W   RETURN;
4010
4011                    !
4012                    ! SUBROUTINE ZUM LOESCHEN BIS ZUM ENDE DER ZEILE
4013                    !
4014 FE23CA   6100FEAE    ERASE: BSR.W  INVERT;         !CURSOR AUS
4015 FE23CE   6100FE30          BSR.W   GETBYTEPOS;
4016 FE23D2   4A02              TST.B   D2;
4017 FE23D4   6B0A              BMI     ERA0;
4018 FE23D6   670C              BEQ     ERA1;
4019 FE23D8   5342              SUBQ.W  1,D2;
4020 FE23DA   670C              BEQ     ERA2;
4021
4022 FE23DC   7AC0        ERA3: MOVEQ.L $FFFFFFC0,D5;
4023 FE23DE   600A              BRA     ERA5;
4024 FE23E0   7A00        ERA0: MOVEQ.L 0,D5;
4025 FE23E2   6006              BRA     ERA5;
4026 FE23E4   7AFC        ERA1: MOVEQ.L $FFFFFFFC,D5;
4027 FE23E6   6002              BRA     ERA5;
4028 FE23E8   7AF0        ERA2: MOVEQ.L $FFFFFFF0,D5;
4029
4030 FE23EA   780A        ERA5: MOVEQ.L 10,D4;          !11 RASTERZEILEN
4031 FE23EC   7640              MOVEQ.L 64,D3;          !ABSTAND DER RASTERZEILEN
4032 FE23EE   284D              MOVE.L  A5,A4;          !LOESCHE ...
4033 FE23F0   CB14        ERA6: AND.B   D5,(A4);        !... DEN ...
4034 FE23F2   D9C3              ADD.L   D3,A4;          !... ERSTEN ...
4035 FE23F4   51CCFFFA          DBF     D4,ERA6;        !... BUCHSTABEN
4036 FE23F8   DBFC00000001      ADD.L   1,A5;
4037 FE23FE   220D              MOVE.L  A5,D1;
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4038 FE2400   C27C003F            AND.W   $3F,D1;
4039 FE2404   743E                MOVEQ.L 62,D2;
4040 FE2406   9441                SUB.W   D1,D2;          !ZAEHLER IN DBF-LOOP
4041 FE2408   6B14                BMI     ERA98;          !SPRINGE, WENN SCHON FERTIG
4042 FE240A   3202                MOVE.W  D2,D1;
4043 FE240C   780A                MOVEQ.L 10,D4;          !11 RASTERZEILEN
4044 FE240E   284D          ERA7: MOVE.L  A5,A4;
4045 FE2410   2401                MOVE.L  D1,D2;          !RUECKSETZE ZAEHLER
4046 FE2412   421C          ERA8: CLR.B   (A4)+;          !LOESCHE...
4047 FE2414   51CAFFFC            DBF     D2,ERA8;        !...DEN REST DER ZEILE
4048 FE2418   DBC3                ADD.L   D3,A5;          !NEUE RASTERZEILE
4049 FE241A   51CCFFF2            DBF     D4,ERA7;
4050 FE241E   6100FE5A      ERA98: BSR     INVERT;         !CURSOR AN
4051 FE2422   4E75                RTS;
4052
4053                        !
4054                        ! LOESCHE BIS ZUM ENDE DER SEITE
4055                        !        (AB CURSOR POSITION)
4056                        !
4057                        ERATEOP:
4058 FE2424   6100FFA4            BSR.W   ERASE;          !LOESCHE REST DER ZEILE
4059 FE2428   6100FDD6            BSR.W   GETBYTEPOS;
4060 FE242C   2A0D                MOVE.L  A5,D5;          !BERECHNE ANFANG DER...
4061                                                      !...NEUEN ZEILE...
4062 FE242E   DABC000002C0        ADD.L   704,D5;         !...11 ZEILEN MIT 64 BYTE...
4063 FE2434   CA3C00C0            AND.B   $C0,D5;         !ANFANG DER NEUEN ZEILE
4064 FE2438   2A45                MOVE.L  D5,A5;
4065 FE243A   284E                MOVE.L  A6,A4;          !RAMANFANG -> A4
4066 FE243C   D9FC00004000        ADDA.L  $4000,A4;       !RAMENDE   -> A4
4067 FE2442   99C0                SUB.L   A5,A4;          !BERECHNE ZAHL...
4068 FE2444   280C                MOVE.L  A4,D4;          !...DER VERBLEIBENDEN...
4069 FE2446   6708                BEQ     ERAP2;          !...LONG-
4070 FE2448   E44C                LSR.W   2,D4;           !...WORDS
4071 FE244A   4298          ERAP1: CLR.L  (A5)+;          !LOESCHE DIESE
4072 FE244C   51CCFFFC            DBF     D4,ERAP1;
4073 FE2450   6000FC9E      ERAP2: BRA.W   RETURN;
4074
4075                        !
4076                        ! SUBROUTINE ZUM SCROLLING DER BILDSEITE
4077                        !
4078 FE2454   264E          SCROLL: MOVE.L  A6,A3;          !RAMANFANG -> A3
4079 FE2456   284B                  MOVE.L  A3,A4;
4080 FE2458   D9FC00000280          ADD.L   640,A4;         !EINE ZEILE TIEFER
4081 FE245E   323C0F0F              MOVE.W  3855,D1;        !24 ZEILEN HOCHRUECKEN
4082 FE2462   26DC          SCR0:   MOVE.L  (A4)+,(A3)+;
4083 FE2464   51C9FFFC              DBF     D1,SCR0;
4084 FE2468   323C00EF              MOVE.W  239,D1;         !REST DER SEITE LOESCHEN
4085 FE246C   4298          SCR1:   CLR.L   (A3)+;
4086 FE246E   51C9FFFC              DBF     D1,SCR1;
4087 FE2472   4E75                  RTS;
4088
4089                        !
4090                        ! DEN PIEPSER AUF DER RUECKWAND ANSPRECHEN
4091                        !
4092 FE2474   08B8000018819 BELL:   BCLR.B  1,VIAPPCR;
4093 FE247A   223C000186A0         MOVE.L  100000,D1;
4094 FE2480   5381          BELLL:  SUBQ    1,D1;
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4095 FE2482   66FC                BNE     BELLL;
4096 FE2484   08F800018819        BSET.B  1,VIAPPCR;
4097 FE248A   6000FC64            BRA.W   RETURN;
4098
4099                        !
4100                        ! BEARBEITUNG DER ESCAPE SEQUENZEN
4101                        !
4102 FE248E   117C00010002 ESCAPE: MOVE.B  1,ESCSW;          !EINSCHALTE FLAG
4103 FE2494   6000FC5A            BRA.W   RETURN;
4104
4105 FE2498   4A280003     ESON:  TST.B   ESCOUNT;          !NEUE SEQUENZ?
4106 FE249C   6678                BNE     ESON3;           !NEIN: SPRINGE
4107
4108                        ! IST EINE NEUE SEQUENZ
4109 FE249E   43FA0006            LEA.L   JMPTAB2,A1;      !VERZWEIGE ZUR...
4110 FE24A2   6000FC3A            BRA.W   GOTO;            !ENTSPRECHENDEN ROUTINE
4111
4112                        !
4113                        ! TABELLE: ENTHAELT GUELTIGE ESCAPE SEQUENZEN
4114                        !
4115                        JMPTAB2:
4116 FE24A6   03DA                DC.W    ASCIION-OUTC2;   DC.W 'A';
4116 FE24A8   0041
4117 FE24AA   03E0                DC.W    DEUTSCHON-OUTC2; DC.W 'D';
4117 FE24AC   0044
4118 FE24AE   0418                DC.W    ABSADD-OUTC2;    DC.W 'C';
4118 FE24B0   0043
4119 FE24B2   03E8                DC.W    CURSORON-OUTC2;  DC.W 'B';
4119 FE24B4   0042
4120 FE24B6   03F8                DC.W    CURSOROFF-OUTC2; DC.W 'E';
4120 FE24B8   0045
4121 FE24BA   040A                DC.W    INVON-OUTC2;     DC.W 'F';
4121 FE24BC   0046
4122 FE24BE   0412                DC.W    INVOFF-OUTC2;    DC.W 'G';
4122 FE24C0   0047
4123 FE24C2   0422                DC.W    RETURN2-OUTC2;   DC.W $0000;
4123 FE24C4   0000
4124
4125                        !
4126                        ! SONDERFUNKTIONEN, DIE DURCH ESCAPE SEQUENZEN GESTEUERT
4127                        !                  WERDEN
4128                        !
4129 FE24C6   42280004     ASCIION: CLR.B  DEUTSCH;
4130 FE24CA   6042                  BRA    RETURN2;
4131
4132                        DEUTSCHON:
4133 FE24CC   117CFFFF0004          MOVE.B -1,DEUTSCH;
4134 FE24D2   603A                  BRA    RETURN2;
4135
4136                        CURSORON:
4137 FE24D4   4A280005              TST.B  CURSOFF;
4138 FE24D8   6708                  BEQ.S  CON1;
4139 FE24DA   42280005              CLR.B  CURSOFF;
4140 FE24DE   6100FD9A              BSR.W  INVERT;
4141 FE24E2   602A          CON1:   BRA    RETURN2;
4142
4143                        CURSOROFF:
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4144 FE24E4   4A280005            TST.B   CURSOFF;
4145 FE24E8   660A                BNE.S   COFF1;
4146 FE24EA   6100FD8E            BSR.W   INVERT;
4147 FE24EE   117CFFFF0005        MOVE.B  -1,CURSOFF;
4148 FE24F4   6018          COFF1:  BRA     RETURN2;
4149
4150 FE24F6   117C00010006  INVON:  MOVE.B  1,INVFLG;
4151 FE24FC   6010                BRA     RETURN2;
4152
4153 FE24FE   42280006      INVOFF: CLR.B   INVFLG;
4154 FE2502   600A                BRA     RETURN2;
4155
4156 FE2504   117C00020003  ABSADD: MOVE.B  2,ESCOUNT;
4157 FE250A   6000FBE4            BRA.W   RETURN;          !ESCSW BLEIBT AN
4158
4159 FE250E   42280002      RETURN2: CLR.B  ESCSW;
4160 FE2512   6000FBDC            BRA.W   RETURN;
4161
4162                         ! ABSOLUTE CURSOR POSITIONIERUNG
4163 FE2516   903C0020      ESON3:  SUB.B   $20,D0;
4164 FE251A   0C2800010003          CMPI.B  1,ESCOUNT;
4165 FE2520   671E                  BEQ     ESON5;
4166                         ! POSITIONIERE ZEILE
4167 FE2522   2F00                  MOVE.L  D0,-(A7);
4168 FE2524   6100FD54              BSR     INVERT;          !SCHALTE ALTEN CURSOR AB
4169 FE2528   201F                  MOVE.L  (A7)+,D0;
4170 FE252A   B03C0018              CMP.B   24,D0;
4171 FE252E   6302                  BLS     ESON4;
4172 FE2530   7018                  MOVEQ.L 24,D0;
4173 FE2532   11400000      ESON4:  MOVE.B  D0,ZEILE;
4174 FE2536   117C00010003          MOVE.B  1,ESCOUNT;
4175 FE253C   6000FBB2              BRA.W   RETURN;          !ESCSW BLEIBT AN
4176                         ! POSITIONIERE SPALTE
4177 FE2540   B03C004F      ESON5:  CMP.B   79,D0;
4178 FE2544   6302                  BLS     ESON6;
4179 FE2546   704F                  MOVEQ.L 79,D0;
4180 FE2548   11400001      ESON6:  MOVE.B  D0,SPALTE;
4181 FE254C   42280003              CLR.B   ESCOUNT;
4182                         ! SCHALTE NEUEN CURSOR EIN
4183 FE2550   6100FD28              BSR     INVERT;
4184 FE2554   60B8                  BRA     RETURN2;
4185                         !
4186                         ! TABELLE ZUM UMKODIEREN ASCII -> DEUTSCH
4187                         !
4188 FE2556   4080          GTAB:   DC.W    $4080;
4189 FE2558   5B81                  DC.W    $5B81;
4190 FE255A   5C82                  DC.W    $5C82;
4191 FE255C   5D83                  DC.W    $5D83;
4192 FE255E   7B84                  DC.W    $7B84;
4193 FE2560   7C85                  DC.W    $7C85;
4194 FE2562   7D86                  DC.W    $7D86;
4195 FE2564   7E87                  DC.W    $7E87;
4196 FE2566   0000                  DC.W    $0000;
4197
4198
4199                         CHARS:
4200 FE2568   00000000      DC.L    $00000000;  DC.L $00000000; DC.W $0000;   !SPACE
```

```
4200 FE256C   00000000
4200 FE2570   0000
4201 FE2572   20202020     DC.L  $20202020; DC.L $20002000; DC.W $0000;  !!
4201 FE2576   20002000
4201 FE257A   0000
4202 FE257C   50505000     DC.L  $50505000; DC.L $00000000; DC.W $0000;  !"
4202 FE2580   00000000
4202 FE2584   0000
4203 FE2586   5050F850     DC.L  $5050F850; DC.L $F8505000; DC.W $0000;  !#
4203 FE258A   F8505000
4203 FE258E   0000
4204 FE2590   2078A070     DC.L  $2078A070; DC.L $28F82000; DC.W $0000;  !$
4204 FE2594   28F82000
4204 FE2598   0000
4205 FE259A   C0C81020     DC.L  $C0C81020; DC.L $40981800; DC.W $0000;  !%
4205 FE259E   40981800
4205 FE25A2   0000
4206 FE25A4   20505060     DC.L  $20505060; DC.L $A8986800; DC.W $0000;  !&
4206 FE25A8   A8986800                    .
4206 FE25AC   0000
4207 FE25AE   10204000     DC.L  $10204000; DC.L $00000000; DC.W $0000;  !'
4207 FE25B2   00000000
4207 FE25B6   0000
4208 FE25B8   10204040     DC.L  $10204040; DC.L $40201000; DC.W $0000;  !(
4208 FE25BC   40201000
4208 FE25C0   0000
4209 FE25C2   40201010     DC.L  $40201010; DC.L $10204000; DC.W $0000;  !)
4209 FE25C6   10204000
4209 FE25CA   0000
4210 FE25CC   0020A870     DC.L  $0020A870; DC.L $A8200000; DC.W $0000;  !*
4210 FE25D0   A8200000
4210 FE25D4   0000
4211 FE25D6   002020F8     DC.L  $002020F8; DC.L $20200000; DC.W $0000;  !+
4211 FE25DA   20200000
4211 FE25DE   0000
4212 FE25E0   00000000     DC.L  $00000000; DC.L $00003030; DC.W $6000;  !,
4212 FE25E4   00003030
4212 FE25E8   6000
4213 FE25EA   000000F8     DC.L  $000000F8; DC.L $00000000; DC.W $0000;  !-
4213 FE25EE   00000000
4213 FE25F2   0000
4214 FE25F4   00000000     DC.L  $00000000; DC.L $00303000; DC.W $0000;  !.
4214 FE25F8   00303000
4214 FE25FC   0000
4215 FE25FE   00081020     DC.L  $00081020; DC.L $40800000; DC.W $0000;  !/
4215 FE2602   40800000
4215 FE2606   0000
4216 FE2608   708898A8     DC.L  $708898A8; DC.L $C8887000; DC.W $0000;  !0
4216 FE260C   C8887000
4216 FE2610   0000
4217 FE2612   20602020     DC.L  $20602020; DC.L $20207000; DC.W $0000;  !1
4217 FE2616   20207000
4217 FE261A   0000
4218 FE261C   70880810     DC.L  $70880810; DC.L $2040F800; DC.W $0000;  !2
4218 FE2620   2040F800
4218 FE2624   0000
4219 FE2626   F8102010     DC.L  $F8102010; DC.L $08887000; DC.W $0000;  !3
```

```
4219 FE262A    08887000
4219 FE262E    0000
4220 FE2630    10305090      DC.L   $10305090;  DC.L $F8101000; DC.W $0000;   !4
4220 FE2634    F8101000
4220 FE2638    0000
4221 FE263A    F880F008      DC.L   $F880F008;  DC.L $08887000; DC.W $0000;   !5
4221 FE263E    08887000
4221 FE2642    0000
4222 FE2644    304080F0      DC.L   $304080F0;  DC.L $88887000; DC.W $0000;   !6
4222 FE2648    88887000
4222 FE264C    0000
4223 FE264E    F8081020      DC.L   $F8081020;  DC.L $40404000; DC.W $0000;   !7
4223 FE2652    40404000
4223 FE2656    0000
4224 FE2658    70888870      DC.L   $70888870;  DC.L $88887000; DC.W $0000;   !8
4224 FE265C    88887000
4224 FE2660    0000
4225 FE2662    70888878      DC.L   $70888878;  DC.L $08106000; DC.W $0000;   !9
4225 FE2666    08106000
4225 FE266A    0000
4226 FE266C    00003030      DC.L   $00003030;  DC.L $00303000; DC.W $0000;   !:
4226 FE2670    00303000
4226 FE2674    0000
4227 FE2676    00000030      DC.L   $00000030;  DC.L $30003030; DC.W $6000;   !;
4227 FE267A    30003030
4227 FE267E    6000
4228 FE2680    10204080      DC.L   $10204080;  DC.L $40201000; DC.W $0000;   !<
4228 FE2684    40201000
4228 FE2688    0000
4229 FE268A    0000F800      DC.L   $0000F800;  DC.L $F8000000; DC.W $0000;   !=
4229 FE268E    F8000000
4229 FE2692    0000
4230 FE2694    40201008      DC.L   $40201008;  DC.L $10204000; DC.W $0000;   !>
4230 FE2698    10204000
4230 FE269C    0000
4231 FE269E    70880810      DC.L   $70880810;  DC.L $20002000; DC.W $0000;   !?
4231 FE26A2    20002000
4231 FE26A6    0000
4232 FE26A8    3048B8A8      DC.L   $3048B8A8;  DC.L $B8403800; DC.W $0000;   !@
4232 FE26AC    B8403800
4232 FE26B0    0000
4233 FE26B2    708888F8      DC.L   $708888F8;  DC.L $88888800; DC.W $0000;   !A
4233 FE26B6    88888800
4233 FE26BA    0000
4234 FE26BC    F08888F0      DC.L   $F08888F0;  DC.L $8888F000; DC.W $0000;   !B
4234 FE26C0    8888F000
4234 FE26C4    0000
4235 FE26C6    70888080      DC.L   $70888080;  DC.L $80887000; DC.W $0000;   !C
4235 FE26CA    80887000
4235 FE26CE    0000
4236 FE26D0    E0908888      DC.L   $E0908888;  DC.L $8890E000; DC.W $0000;   !D
4236 FE26D4    8890E000
4236 FE26D8    0000
4237 FE26DA    F88080F0      DC.L   $F88080F0;  DC.L $8080F800; DC.W $0000;   !E
4237 FE26DE    8080F800
4237 FE26E2    0000
4238 FE26E4    F88080F8      DC.L   $F88080F8;  DC.L $80808000; DC.W $0000;   !F
```

```
4238 FE26E8   80808000
4238 FE26EC   0000
4239 FE26EE   78808098     DC.L  $78808098; DC.L $88887800; DC.W $0000;  !G
4239 FE26F2   88887800
4239 FE26F6   0000
4240 FE26F8   888888F8     DC.L  $888888F8; DC.L $88888800; DC.W $0000;  !H
4240 FE26FC   88888800
4240 FE2700   0000
4241 FE2702   70202020     DC.L  $70202020; DC.L $20207000; DC.W $0000;  !I
4241 FE2706   20207000
4241 FE270A   0000
4242 FE270C   38101010     DC.L  $38101010; DC.L $10906000; DC.W $0000;  !J
4242 FE2710   10906000
4242 FE2714   0000
4243 FE2716   8890A0C0     DC.L  $8890A0C0; DC.L $A0908800; DC.W $0000;  !K
4243 FE271A   A0908800
4243 FE271E   0000
4244 FE2720   80808080     DC.L  $80808080; DC.L $8080F800; DC.W $0000;  !L
4244 FE2724   8080F800
4244 FE2728   0000
4245 FE272A   88D8A8A8     DC.L  $88D8A8A8; DC.L $88888800; DC.W $0000;  !M
4245 FE272E   88888800
4245 FE2732   0000
4246 FE2734   8888C8A8     DC.L  $8888C8A8; DC.L $98888800; DC.W $0000;  !N
4246 FE2738   98888800
4246 FE273C   0000
4247 FE273E   70888888     DC.L  $70888888; DC.L $88887000; DC.W $0000;  !O
4247 FE2742   88887000
4247 FE2746   0000
4248 FE2748   F08888F0     DC.L  $F08888F0; DC.L $80808000; DC.W $0000;  !P
4248 FE274C   80808000
4248 FE2750   0000
4249 FE2752   70888888     DC.L  $70888888; DC.L $A8906800; DC.W $0000;  !Q
4249 FE2756   A8906800
4249 FE275A   0000
4250 FE275C   F08888F0     DC.L  $F08888F0; DC.L $A0908800; DC.W $0000;  !R
4250 FE2760   A0908800
4250 FE2764   0000
4251 FE2766   78808070     DC.L  $78808070; DC.L $0808F000; DC.W $0000;  !S
4251 FE276A   0808F000
4251 FE276E   0000
4252 FE2770   F8202020     DC.L  $F8202020; DC.L $20202000; DC.W $0000;  !T
4252 FE2774   20202000
4252 FE2778   0000
4253 FE277A   88888888     DC.L  $88888888; DC.L $88887000; DC.W $0000;  !U
4253 FE277E   88887000
4253 FE2782   0000
4254 FE2784   88888888     DC.L  $88888888; DC.L $88502000; DC.W $0000;  !V
4254 FE2788   88502000
4254 FE278C   0000
4255 FE278E   888888A8     DC.L  $888888A8; DC.L $A8A85000; DC.W $0000;  !W
4255 FE2792   A8A85000
4255 FE2796   0000
4256 FE2798   88885020     DC.L  $88885020; DC.L $50888800; DC.W $0000;  !X
4256 FE279C   50888800
4256 FE27A0   0000
4257 FE27A2   88888850     DC.L  $88888850; DC.L $20202000; DC.W $0000;  !Y
```

```
4257 FE27A6   20202000
4257 FE27AA   0000
4258 FE27AC   F8081020    DC.L  $F8081020; DC.L $4080F800; DC.W $0000;  !Z
4258 FE27B0   4080F800
4258 FE27B4   0000
4259 FE27B6   70404040    DC.L  $70404040; DC.L $40407000; DC.W $0000;  !E
4259 FE27BA   40407000
4259 FE27BE   0000
4260 FE27C0   00804020    DC.L  $00804020; DC.L $10080000; DC.W $0000;  !\
4260 FE27C4   10080000
4260 FE27C8   0000
4261 FE27CA   70101010    DC.L  $70101010; DC.L $10107000; DC.W $0000;  !]
4261 FE27CE   10107000
4261 FE27D2   0000
4262 FE27D4   2070A820    DC.L  $2070A820; DC.L $20202000; DC.W $0000;  !^
4262 FE27D8   20202000
4262 FE27DC   0000
4263 FE27DE   00000000    DC.L  $00000000; DC.L $00000000; DC.W $F800;  !_
4263 FE27E2   00000000
4263 FE27E6   F800
4264 FE27E8   40201000    DC.L  $40201000; DC.L $00000000; DC.W $0000;  !`
4264 FE27EC   00000000
4264 FE27F0   0000
4265 FE27F2   00007008    DC.L  $00007008; DC.L $78887800; DC.W $0000;  !a
4265 FE27F6   78887800
4265 FE27FA   0000
4266 FE27FC   8080F088    DC.L  $8080F088; DC.L $8888F000; DC.W $0000;  !b
4266 FE2800   8888F000
4266 FE2804   0000
4267 FE2806   00007080    DC.L  $00007080; DC.L $80807000; DC.W $0000;  !c
4267 FE280A   80807000
4267 FE280E   0000
4268 FE2810   00007888    DC.L  $00007888; DC.L $88887800; DC.W $0000;  !d
4268 FE2814   88887800
4268 FE2818   0000
4269 FE281A   00007088    DC.L  $00007088; DC.L $F8807000; DC.W $0000;  !e
4269 FE281E   F8807000
4269 FE2822   0000
4270 FE2824   3048E040    DC.L  $3048E040; DC.L $40404000; DC.W $0000;  !f
4270 FE2828   40404000
4270 FE282C   0000
4271 FE282E   00006898    DC.L  $00006898; DC.L $88986808; DC.W $7000;  !g
4271 FE2832   88986808
4271 FE2836   7000
4272 FE2838   8080F088    DC.L  $8080F088; DC.L $88888800; DC.W $0000;  !h
4272 FE283C   88888800
4272 FE2840   0000
4273 FE2842   20006020    DC.L  $20006020; DC.L $20207000; DC.W $0000;  !i
4273 FE2846   20207000
4273 FE284A   0000
4274 FE284C   10003010    DC.L  $10003010; DC.L $10101090; DC.W $6000;  !j
4274 FE2850   10101090
4274 FE2854   6000
4275 FE2856   808990A0    DC.L  $808090A0; DC.L $D0888800; DC.W $0000;  !k
4275 FE285A   D0888800
4275 FE285E   0000
4276 FE2860   60202020    DC.L  $60202020; DC.L $20207000; DC.W $0000;  !l
```

```
4276 FE2864   20207000
4276 FE2868   0000
4277 FE286A   0000D0A8    DC.L  $0000D0A8; DC.L $A8A8A800; DC.W $0000;  !m
4277 FE286E   A8A8A800
4277 FE2872   0000
4278 FE2874   0000F088    DC.L  $0000F088; DC.L $88888800; DC.W $0000;  !n
4278 FE2878   88888800
4278 FE287C   0000
4279 FE287E   00007088    DC.L  $00007088; DC.L $88887000; DC.W $0000;  !o
4279 FE2882   88887000
4279 FE2886   0000
4280 FE2888   0000B0C8    DC.L  $0000B0C8; DC.L $88C8B080; DC.W $8000;  !p
4280 FE288C   88C8B080
4280 FE2890   8000
4281 FE2892   00006898    DC.L  $00006898; DC.L $88986808; DC.W $0800;  !q
4281 FE2896   88986808
4281 FE289A   0800
4282 FE289C   0000B0C8    DC.L  $0000B0C8; DC.L $80808000; DC.W $0000;  !r
4282 FE28A0   80808000
4282 FE28A4   0000
4283 FE28A6   00007880    DC.L  $00007880; DC.L $7008F000; DC.W $0000;  !s
4283 FE28AA   7008F000
4283 FE28AE   0000
4284 FE28B0   4040E040    DC.L  $4040E040; DC.L $40403000; DC.W $0000;  !t
4284 FE28B4   40403000
4284 FE28B8   0000
4285 FE28BA   00008888    DC.L  $00008888; DC.L $88986800; DC.W $0000;  !u
4285 FE28BE   88986800
4285 FE28C2   0000
4286 FE28C4   00008888    DC.L  $00008888; DC.L $88502000; DC.W $0000;  !v
4286 FE28C8   88502000
4286 FE28CC   0000
4287 FE28CE   00008888    DC.L  $00008888; DC.L $88A85000; DC.W $0000;  !w
4287 FE28D2   88A85000
4287 FE28D6   0000
4288 FE28D8   00008850    DC.L  $00008850; DC.L $20508800; DC.W $0000;  !x
4288 FE28DC   20508800
4288 FE28E0   0000
4289 FE28E2   00008888    DC.L  $00008888; DC.L $88986808; DC.W $7000;  !y
4289 FE28E6   88986808
4289 FE28EA   7000
4290 FE28EC   0000F810    DC.L  $0000F810; DC.L $2040F800; DC.W $0000;  !z
4290 FE28F0   2040F800
4290 FE28F4   0000
4291 FE28F6   30404080    DC.L  $30404080; DC.L $40403000; DC.W $0000;  !{
4291 FE28FA   40403000
4291 FE28FE   0000
4292 FE2900   20202020    DC.L  $20202020; DC.L $20202000; DC.W $0000;  !|
4292 FE2904   20202000
4292 FE2908   0000
4293 FE290A   60101008    DC.L  $60101008; DC.L $10106000; DC.W $0000;  !}
4293 FE290E   10106000
4293 FE2912   0000
4294 FE2914   000040A8    DC.L  $000040A8; DC.L $10000000; DC.W $0000;  !~
4294 FE2918   10000000
4294 FE291C   0000
4295 FE291E   A850A850    DC.L  $A850A850; DC.L $A850A850; DC.W $A800;  !DEL
```

```
4295 FE2922   A850A850
4295 FE2926   A800
4296
4297 FE2928   6090C0A0      DC.L   $6090C0A0; DC.L $90503090; DC.W $6000;   !PARAG
4297 FE292C   90503090
4297 FE2930   6000
4298 FE2932   88708888      DC.L   $88708888; DC.L $F8888800; DC.W $0000;   !AE
4298 FE2936   F8888800
4298 FE293A   0000
4299 FE293C   88708888      DC.L   $88708888; DC.L $88887000; DC.W $0000;   !OE
4299 FE2940   88887000
4299 FE2944   0000
4300 FE2946   A888A888      DC.L   $A888A888; DC.L $88887000; DC.W $0000;   !UE
4300 FE294A   88887000
4300 FE294E   0000
4301 FE2950   88007008      DC.L   $88007008; DC.L $78887800; DC.W $0000;   !ae
4301 FE2954   78887800
4301 FE2958   0000
4302 FE295A   88007088      DC.L   $88007088; DC.L $88887000; DC.W $0000;   !oe
4302 FE295E   88887000
4302 FE2962   0000
4303 FE2964   88008888      DC.L   $88008888; DC.L $88986800; DC.W $0000;   !ue
4303 FE2968   88986800
4303 FE296C   0000
4304 FE296E   6090A0E0      DC.L   $6090A0E0; DC.L $9090E080; DC.W $8000;   !ss
4304 FE2972   9090E080
4304 FE2976   8000
4305
5177                                LIST 4;
```

SYMBOL	BLOCK	ZEILE	LAENGE	WERT
ABORTPIAI		963		$FE0878 PC-R.
ABOTSKMC		1065		$FE09B8 PC-R.
ABSADD		4156		$FE2504 PC-R.
ACIA1CO		110		@$FFFF8C05
ACIA1DA		111		@$FFFF8C01
ACIA1IN1		693		$FE061A PC-R.
ACIA1INL		686		$FE0602 PC-R.
ACIA1OU1		704		$FE0630 PC-R.
ACIA1OUL		702		$FE0628 PC-R.
ACIA2CO		112		@$FFFF8C07
ACIA2DA		113		@$FFFF8C03
ADDRESSE		1992		$FE12DA PC-R.
ADREG		1250		$FE0B4C PC-R.
AMAX	TESTALLE	4828		$FFFE0400
AREYOU		3383	LONG	$FE2008 PC-R.
ASCIION		4129		$FE24C6 PC-R.
ASSEMBLE		706		@$104EB0
ASSEMBO		1922		$FE1212 PC-R.
ASSWBEG		75	LONG	@$5FE
ASSWEND		76	LONG	@$602
ASTERR		1654		$FE0F50 PC-R.
ASTO1		1652		$FE0F46 PC-R.
ASTOHX		1643		$FE0F2A PC-R.
AUTOINTV		2253		@$78
AUTOV3		130		@$6C
AUX		2610		$14
BACKSPACE		3962		$FE2344 PC-R.
BDRIVE		2290	BYTE	$12(A6)
BELL		4092		$FE2474 PC-R.
BELLL		4094		$FE2480 PC-R.
BHEAD		2292	BYTE	$14(A6)
BMAX	TESTALLE	4829		$FFFE0000
BNUMBER		2294	BYTE	$16(A6)
BOOTBLOCK		2189		@$800
BOOTDRIVE		2193	LONG	@$500
BOOTERR		2067		$FE14CF PC-R.
BOOTLOOP		2219		$FE1638 PC-R.
BPRG		61	LONG	@$5A8
BPTAB		2038		$FE1356 PC-R.
BREAKIN		426		$FE0382 PC-R.
BREAKIN1		447		$FE03CA PC-R.
BREAKIN2		451		$FE03D4 PC-R.
BREAKIN3		445		$FE03C2 PC-R.
BREAKP		468		$FE03FA PC-R.
BRKVCT		125		@$88
BS2		3968		$FE2356 PC-R.
BSECTOR		2293	BYTE	$15(A6)
BTRACK		2291	BYTE	$13(A6)
BUFFER		96	WORD	@$67E
BUSERR		2013		$FE130A PC-R.
BUSERRORV		128		@$8
C1		3648		$FE2074 PC-R.
CALLCOM		497		$FE043E PC-R.
CALLCOM1		505		$FE0456 PC-R.

SYMBOL	BLOCK	ZEILE	LAENGE	WERT
CARRIAGERETURN		3945		$FE2310 PC-R.
CASE0		3762		$FE2174 PC-R.
CASE00		3765		$FE217A PC-R.
CASE1		3774		$FE2190 PC-R.
CASE10		3778		$FE21A0 PC-R.
CASE2		3794		$FE21C8 PC-R.
CASE20		3798		$FE21D8 PC-R.
CASE3		3748		$FE2154 PC-R.
CASE30		3751		$FE215A PC-R.
CENTRWAI		816		$FE0704 PC-R.
CENTTEST	TESTALLE	4583		$FE2B60 PC-R.
CHAINITAB		269	WORD	$FE0170 PC-R.
CHARS		4199	LONG	$FE2568 PC-R.
CHBINITAB		282	WORD	$FE0186 PC-R.
CHECKR		3142		$FE1DBE PC-R.
CHECKW		3127		$FE1DA4 PC-R.
CHECKW1		3131		$FE1DB4 PC-R.
CHECKW2		3134		$FE1DB8 PC-R.
CHR01		3732		$FE2134 PC-R.
CHROUT		3729		$FE212A PC-R.
CHROUT02		3736		$FE213C PC-R.
CHROUT1		3739		$FE2140 PC-R.
CIP		2623		$1
CLBUFFER		565		$FE04F8 PC-R.
CLC		2618		$1
CLEARBP		455		$FE03DA PC-R.
CLEARBP1		461		$FE03EE PC-R.
CLEARBP3		464		$FE03F8 PC-R.
CLEARR6		473		$FE0402 PC-R.
CLEARR61		476		$FE040C PC-R.
CLEARSCREEN		3999		$FE23B2 PC-R.
CLRCLC		2635		$82
CLROK		2634		$81
CLRPAGE		3644		$FE206A PC-R.
CMPNAM		3217		$FE1E80 PC-R.
CMPNAM1		3220		$FE1E8E PC-R.
CMPNAM9		3226		$FE1E9C PC-R.
COFF1		4148		$FE24F4 PC-R.
COLDST1		313		$FE01CE PC-R.
COLDSTRT		175		$FE0054 PC-R.
COMBUFF		93	WORD	a$620
COMEND		94	WORD	a$67A
COMRAM		2287	BYTE	$0(A6)
COMTAB		2070	WORD	$FE140C PC-R.
CON1		4141		$FE24E2 PC-R.
CONTROLC		964		$FE087C PC-R.
CONTROLC0		936		$FE0816 PC-R.
CPURAMEND	TESTALLE	4362		$20000
CPURAMST	TESTALLE	4361		$800
CRTADR		118		a$FFFF8A01
CRTREG		119		a$FFFF8A03
CSPECIFY		2331		$FE16C6 PC-R.
CT1	TESTALLE	4596		$FE2B82 PC-R.
CT2	TESTALLE	4608		$FE2B98 PC-R.

SYMBOL	BLOCK	ZEILE	LAENGE	WERT	
CT3	TESTALLE	4611		$FE2BA0	PC-R.
CTERR	TESTALLE	4716		$FE2D14	PC-R.
CTM1	TESTALLE	4758		$FE2D7A	PC-R.
CTM2	TESTALLE	4770		$FE2E68	PC-R.
CTM3	TESTALLE	4773		$FE2E8E	PC-R.
CTM4	TESTALLE	4777		$FE2EC5	PC-R.
CTM5	TESTALLE	4780		$FE2EDB	PC-R.
CTM6	TESTALLE	4783		$FE2F09	PC-R.
CURSOFF		3607	BYTE	$5(A0)	
CURSORH		3611		$E	
CURSORL		3612		$F	
CURSOROFF		4143		$FE24E4	PC-R.
CURSORON		4136		$FE24D4	PC-R.
CURSORRIGHT		3970		$FE235A	PC-R.
CURSORUP		3978		$FE2372	PC-R.
DATENDA	READDMA	2549		$FE18B6	PC-R.
DATREG		1276		$FE0B6E	PC-R.
DATREG1		1277		$FE0B72	PC-R.
DATREG11		1294		$FE0B9A	PC-R.
DATREG2		1295		$FE0B9E	PC-R.
DATREG3		1299		$FE0BA0	PC-R.
DDRA		2608		$4	
DECODE		357		$FE02C8	PC-R.
DECODE0		358		$FE02CC	PC-R.
DECODE1		361		$FE02D4	PC-R.
DECODE3		372		$FE02F4	PC-R.
DEFASSB		108		$4000	
DEFASSE		109		$7FFE	
DEFWORK		135		$37FF	
DELAY		2910		$FE1BE0	PC-R.
DELAY1		2911		$FE1BE6	PC-R.
DELETFI		2843		$FE1B38	PC-R.
DELMES		2638		@$500	
DELTAP		2646		$FE192E	PC-R.
DELTAP1		2653		$FE1948	PC-R.
DELTAP2		2658		$FE195C	PC-R.
DELTAP21		2659		$FE1960	PC-R.
DEUTSCH		3606	BYTE	$4(A0)	
DEUTSCHAN		984		$FE08BA	PC-R.
DEUTSCHAUS		990		$FE08CC	PC-R.
DEUTSCHON		4132		$FE24CC	PC-R.
DISBP		482		$FE0414	PC-R.
DISBP9		492		$FE043C	PC-R.
DISERR		3327		$FE1F64	PC-R.
DISERR1		3329		$FE1F6C	PC-R.
DISERR2		3334		$FE1F7A	PC-R.
DISERR3		3335		$FE1F80	PC-R.
DMAREQUEST	READDMA	2544		$FE18AA	PC-R.
DR0		2200		$FE15F8	PC-R.
DRIVEOK	TESTRES	2591		$FE191A	PC-R.
DTL		2272		$FF	
DUBNAM		3378	LONG	$FE1FFA	PC-R.
DUMMY1		95	WORD	@$67C	
DUMP5		1441		$FE0D16	PC-R.

SYMBOL	BLOCK	ZEILE	LAENGE	WERT	
DUMP6		1442		$FE0D1A	PC-R.
DUMPEND		1458		$FE0D4C	PC-R.
DUMPM3		1424		$FE0CE4	PC-R.
DUMPM4		1436		$FE0D06	PC-R.
DUMPMEM		1405		$FE0CAC	PC-R.
DUMPMZ		1416		$FE0CCE	PC-R.
DUMPMZ1		1415		$FE0CCC	PC-R.
DUMPWEI		1454		$FE0D3E	PC-R.
EDITOR		107		@$107400	
ENDBOOT		2238		$FE1664	PC-R.
ENDERAM		2299	BYTE	$19(A6)	
ENDFILL		1156		$FE0A6E	PC-R.
ENDKENN		92	WORD	@$61E	
ENDKENNU		64	WORD	@$5EC	
ENDMOVE		1138		$FE0A50	PC-R.
ENDSERVICE	INTSERVICE	2572		$FE18F2	PC-R.
ENDSTAN		134		$404	
ENDTREE		1169		$FE0A8A	PC-R.
ERA0		4024		$FE23E0	PC-R.
ERA1		4026		$FE23E4	PC-R.
ERA2		4028		$FE23E8	PC-R.
ERA3		4022		$FE23DC	PC-R.
ERA5		4030		$FE23EA	PC-R.
ERA6		4033		$FE23F0	PC-R.
ERA7		4044		$FE240E	PC-R.
ERA8		4046		$FE2412	PC-R.
ERA98		4050		$FE241E	PC-R.
ERAP1		4071		$FE244A	PC-R.
ERAP2		4073		$FE2450	PC-R.
ERASE		4014		$FE23CA	PC-R.
ERATEOL		4007		$FE23C2	PC-R.
ERATEOP		4057		$FE2424	PC-R.
ERRDBUS		2056		$FE1425	PC-R.
ERRONPC		2063		$FE148C	PC-R.
ERRORAB		2061		$FE1474	PC-R.
ERRORACC		2055		$FE1415	PC-R.
ERRORAD		2054		$FE1407	PC-R.
ERRORENDE	READDMA	2553		$FE18C4	PC-R.
ERRORFLAG		2298	BYTE	$18(A6)	
ERRORIL		2057		$FE142F	PC-R.
ERRORPC		2059		$FE144F	PC-R.
ERRORPR		2062		$FE1484	PC-R.
ERRORZE		2060		$FE1460	PC-R.
ERRTEX		2058		$FE1443	PC-R.
ESCAPE		3339	LONG	$FE1F8A	PC-R.
ESCOUNT		4102		$FE248E	PC-R.
ESCSW		3605	BYTE	$3(A0)	
ESON		3604	BYTE	$2(A0)	
ESON3		4105		$FE2498	PC-R.
ESON4		4163		$FE2516	PC-R.
ESON5		4173		$FE2532	PC-R.
ESON6		4177		$FE2540	PC-R.
EWORKEND		4180		$FE2548	PC-R.
		63	LONG	@$5E8	

SYMBOL	BLOCK	ZEILE	LAENGE	WERT
FASCIION		909		$8C
FDCDMA		2249		@$FFFF8E43
FDCDMATC		2250		@$FFFF8E03
FDCMSR		2248		@$FFFF8D01
FDCREAD		2277	BYTE	$FE1678 PC-R.
FDCRECAL		2278	BYTE	$FE167A PC-R.
FDCSEEK		2279	BYTE	$FE167C PC-R.
FDCSENSINT		2282	BYTE	$FE1682 PC-R.
FDCSENSSTAT		2281	BYTE	$FE1680 PC-R.
FDCSPECY		2280	BYTE	$FE167E PC-R.
FDDNOTREADY		2598		$FE1926 PC-R.
FDEUTSCHAN		910		$8D
FILLCOM		1141		$FE0A52 PC-R.
FILLLOOP		1151		$FE0A64 PC-R.
FINDH0		1665		$FE0F6E PC-R.
FINDH1		1667		$FE0F72 PC-R.
FINDH2		1675		$FE0F8E PC-R.
FINDHEAD		1658		$FE0F52 PC-R.
FLOPPYREAD	FLOPPYREAD	2486		$FE1758 PC-R.
FORWARD		3292		$FE1F2C PC-R.
FSTADRH		3613		$C
FSTADRL		3614		$D
FWDT		2629		$B0
GB0		3829		$FE2218 PC-R.
GEFUNDEN		930		$FE080A PC-R.
GETBYTEPOS		3819		$FE2200 PC-R.
GETHEAD		3176		$FE1E0A PC-R.
GETHEAD1		3184		$FE1E24 PC-R.
GETHEAD2		3186		$FE1E2E PC-R.
GETHEAD3		3188		$FE1E34 PC-R.
GETPARAM	GETPARAM	3657		$FE2080 PC-R.
GETSYSC		295		$FE019C PC-R.
GOCOM		518		$FE046E PC-R.
GOCOM1		548		$FE04C8 PC-R.
GOCOM2		531		$FE0498 PC-R.
GOCOM3		537		$FE04A6 PC-R.
GOCOM4		526		$FE048A PC-R.
GOCOM5		550		$FE04D8 PC-R.
GOCOMERR		557		$FE04EE PC-R.
GOTO		3698		$FE20DE PC-R.
GOTO1		3699		$FE20E2 PC-R.
GPL1		2271		$E
GTAB		4188	WORD	$FE2556 PC-R.
HEADLTIME		2257		$3E
HEADUTIME		2258		$F
HOME		3986		$FE2388 PC-R.
HOMEDOWN		3992		$FE239C PC-R.
HOSTEND		871		$FE07B0 PC-R.
HOSTTR		855		$FE0776 PC-R.
HOSTTR1		859		$FE0788 PC-R.
HOSTTR2		866		$FE079E PC-R.
IER		2613		$1A
IFR		2612		$18
ILFILE		3390	LONG	$FE201E PC-R.

SYMBOL	BLOCK	ZEILE	LAENGE	WERT	
ILLINSTR		1997		$FE12EA	PC-R.
INA1		833		$FE073C	PC-R.
INA2		841		$FE074C	PC-R.
INAX2		843		$FE0758	PC-R.
INCH		769		$FE0698	PC-R.
INCHO15		781		$FE06B8	PC-R.
INCHO16		784		$FE06C2	PC-R.
INCHO2		774		$FE06AA	PC-R.
INCHO3		777		$FE06B4	PC-R.
INIACIAS		249		$FE013E	PC-R.
INICENT		825		$FE0722	PC-R.
INICHB		257		$FE0156	PC-R.
INIDRAM		216		$FE00E8	PC-R.
INILOOP		252		$FE014A	PC-R.
INILOOPB		259		$FE015E	PC-R.
INIPIAS		231		$FE010C	PC-R.
INIRET		264		$FE016A	PC-R.
INITCRT		3621		$FE2030	PC-R.
INITREIBER	INITREIBER	2305		$FE1684	PC-R.
INLIDEL		587		$FE0530	PC-R.
INLINE		563		$FE04F0	PC-R.
INLINE0		569		$FE0502	PC-R.
INLINE1		570		$FE0504	PC-R.
INLINE2		585		$FE052E	PC-R.
INTERR	TESTALLE	5107		$FE31D6	PC-R.
INTFLAG		2297	BYTE	$17(A6)	
INTINPUT		52	BYTE	@$556	
INTSERVICE	INTSERVICE	2564		$FE18D0	PC-R.
INV0		3897		$FE22AC	PC-R.
INV01		3898		$FE22AE	PC-R.
INV1		3909		$FE22C4	PC-R.
INV11		3910		$FE22C8	PC-R.
INV2		3925		$FE22EA	PC-R.
INV21		3926		$FE22EE	PC-R.
INV3		3885		$FE2294	PC-R.
INV31		3886		$FE2296	PC-R.
INVERT		3872		$FE227A	PC-R.
INVERT1		3875		$FE2282	PC-R.
INVFLG		3608	BYTE	$6(A0)	
INVOFF		4153		$FE24FE	PC-R.
INVON		4150		$FE24F6	PC-R.
IOFLAG		48	LONG	@$546	
IOLIST		1354		$FE0C28	PC-R.
IOLIST1		1358		$FE0C34	PC-R.
IOLIST2		1362		$FE0C40	PC-R.
IOLIST3		1372		$FE0C62	PC-R.
IOLIST4		1376		$FE0C6A	PC-R.
IOLIST5		1387		$FE0C8A	PC-R.
IOLIST6		1393		$FE0C96	PC-R.
IOLISTE		1398		$FE0CA6	PC-R.
JMPTAB		3709	WORD	$FE20F6	PC-R.
JMPTAB2		4115	WORD	$FE24A6	PC-R.
LASTIO		49	LONG	@$54A	
LF1		3958		$FE2338	PC-R.

SYMBOL	BLOCK	ZEILE	LAENGE	WERT	
LINEFEED		3951		$FE2320	PC-R.
LISTRE7		1337		$FE0C0A	PC-R.
LISTRE6		1312		$FE0BBE	PC-R.
LISTRE61		1325		$FE0BE8	PC-R.
LISTRE62		1321		$FE0BE0	PC-R.
LISTRE68		1344		$FE0C18	PC-R.
LISTRE6E		1347		$FE0C22	PC-R.
LO		219		$FE00F2	PC-R.
LOAD1		2688		$FE1992	PC-R.
LOAD11		2692		$FE199E	PC-R.
LOAD2		2710		$FE19D8	PC-R.
LOAD20		2703		$FE19C4	PC-R.
LOAD3		2715		$FE19E6	PC-R.
LOAD71		2727		$FE1A08	PC-R.
LOADEND		1786		$FE10AE	PC-R.
LOADS1		1734		$FE101A	PC-R.
LOADS22		1739		$FE1046	PC-R.
LOADSE1		1766		$FE1076	PC-R.
LOADSEON		1759		$FE1062	PC-R.
LOADSERR		1788		$FE10B2	PC-R.
LOADSYN		1714		$FE0FDC	PC-R.
LOOP		3630		$FE204E	PC-R.
LOOP	INITREIBER	2307		$FE168C	PC-R.
LOOPA6		924		$FE07F8	PC-R.
M1		221		$FE00F6	PC-R.
M2		224		$FE0102	PC-R.
MAXSECT		2262		$1A	
MAXTRACK		2261		$4F	
MDCRBUFFER		45	BYTE	0$500	
MEMERR		1222		$FE0B0C	PC-R.
MEMLOWER		1244		$FE0B46	PC-R.
MEMNEWA		1235		$FE0B30	PC-R.
MEMNEWV		1215		$FE0AFE	PC-R.
MEMNEXT		1241		$FE0B40	PC-R.
MEMORY		1174		$FE0A8C	PC-R.
MEMORY1		1183		$FE0AA6	PC-R.
MEMORY2		1210		$FE0AF6	PC-R.
MES1234		2066		$FE14BE	PC-R.
MESDATEN		2064		$FE1496	PC-R.
MESFILED		2051		$FE13DE	PC-R.
MESNUMM		2065		$FE14AA	PC-R.
MESSACT		2044		$FE1387	PC-R.
MESSCHER		2048		$FE13B7	PC-R.
MESSEND		2053		$FE1403	PC-R.
MESSFOUN		2050		$FE13CD	PC-R.
MESSIGNO		2052		$FE13F0	PC-R.
MESSMCR		2049		$FE13C8	PC-R.
MINILOAD		2679		$FE196E	PC-R.
MINISAVE		2746		$FE1A1A	PC-R.
MLOOP		202		$FE00C6	PC-R.
MLOOP1		204		$FE00D0	PC-R.
MLOOP3		209		$FE00E2	PC-R.
MOLOAD		1509		$FE0DB6	PC-R.
MOLOAD12		1535		$FE0E04	PC-R.

SYMBOL	BLOCK	ZEILE	LAENGE	WERT
MOLOADER		1572		$FE0E7C PC-R.
MOLOADS		1522		$FE0DE0 PC-R.
MOLOANER		1515		$FE0DC6 PC-R.
MOLONOF		1514		$FE0DC4 PC-R.
MONLOOP	INITREIBER	2315		$FE16AC PC-R.
MONOHEAD		1549		$FE0E2E PC-R.
MONOMESS		1540		$FE0E14 PC-R.
MONST		131		$4E0
MONVER		8	LONG	$56322E33
MOVECOM		1124		$FE0A3A PC-R.
MOVELOOP		1133		$FE0A46 PC-R.
MPSCTABA	TESTALLE	4877	WORD	$FE2FAA PC-R.
MPSCTABB	TESTALLE	4890	WORD	$FE2FC0 PC-R.
N		2273		$1
NAMERR		3319		$FE1F58 PC-R.
NAMTE1		3242		$FE1EB2 PC-R.
NAMTE8		3248		$FE1EC6 PC-R.
NAMTE9		3251		$FE1ECC PC-R.
NAMTEST		3236		$FE1EA2 PC-R.
NEW1		3853		$FE224A PC-R.
NEW2		3864		$FE2270 PC-R.
NEW3		3865		$FE2274 PC-R.
NEWCURSOR		3849		$FE2240 PC-R.
NMI1	TESTALLE	4626		$FE2BCC PC-R.
NMI3	TESTALLE	4724		$FE2D2A PC-R.
NMIABO		2021		$FE131A PC-R.
NMIENT	TESTALLE	4615		$FE2BA4 PC-R.
NMIVECT	TESTALLE	4580		@$7C
NOREAD		3017		$FE1CB0 PC-R.
NOSEEK		2226		$FE164C PC-R.
OK		2617		$0
OKBB		2215		$FE162A PC-R.
OKBIT7		931		$FE080C PC-R.
OPCJMP		136		$4EF9
ORA		2609		$1C
OTHERLOA		1528		$FE0DF0 PC-R.
OTHERS11		1825		$FE1122 PC-R.
OTHERSAV		1821		$FE1110 PC-R.
OUTA1		791		$FE06C8 PC-R.
OUTA11		792		$FE06CA PC-R.
OUTA2		801		$FE06DA PC-R.
OUTA21		802		$FE06DC PC-R.
OUTC2		3704		$FE20EC PC-R.
OUTCENT		810		$FE06EC PC-R.
OUTCH		732		$FE0640 PC-R.
OUTCH1		742		$FE0660 PC-R.
OUTCH15		760		$FE0688 PC-R.
OUTCH16		763		$FE0692 PC-R.
OUTCH2		745		$FE066A PC-R.
OUTCH3		746		$FE066A PC-R.
OUTCH4		750		$FE0674 PC-R.
OUTCH5		754		$FE067E PC-R.
OUTCHAR		3689		$FE20C4 PC-R.
OUTN1		3198		$FE1E44 PC-R.

SYMBOL	BLOCK	ZEILE	LAENGE	WERT
OUTNAM		3195		$FE1E3A PC-R.
OUTOFRAN		2005		$FE12FA PC-R.
OUTREG		617		$FE055E PC-R.
OUTREG1		623		$FE0572 PC-R.
OUTREG2		640		$FE059E PC-R.
OUTREG3		638		$FE0598 PC-R.
OUTREG5		646		$FE05AC PC-R.
PACK		1090		$FE09E8 PC-R.
PACK1		1094		$FE09F4 PC-R.
PACKT		2857		$FE1B56 PC-R.
PACKTAPE		1928		$FE121E PC-R.
PBLANK		1115		$FE0A26 PC-R.
PBLANK1		1118		$FE0A2E PC-R.
PCRG		60	LONG	@$5A4
PCRLF		1099		$FE09FA PC-R.
PCRLF1		1107		$FE0A16 PC-R.
PCRR		2611		$16
PDATA		606		$FE054E PC-R.
PDATA	TESTALLE	4516		$FE2B08 PC-R.
PDATA1		611		$FE055C PC-R.
PIACRA		121		@$FFFF8903
PIACRB		123		@$FFFF8907
PIADRA		120		@$FFFF8901
PIADRB		122		@$FFFF8905
POINTACT		91	LONG	@$61A
PREAMB		2625		$55
PRIVILEG		2009		$FE1302 PC-R.
PROCOUN		1271		$FE0B68 PC-R.
PRTNIB		1074		$FE09C4 PC-R.
PRTNIB1		1077		$FE09CC PC-R.
PRTNIB2		1076		$FE09CA PC-R.
R2		3976		$FE236E PC-R.
RAM0	TESTALLE	4403		$FE2A24 PC-R.
RAMERROR	TESTALLE	4491		$FE2AD4 PC-R.
RAMM1	TESTALLE	4522		$FE2B12 PC-R.
RAMM2	TESTALLE	4525		$FE2B21 PC-R.
RAMM3	TESTALLE	4528		$FE2B30 PC-R.
RAMM4	TESTALLE	4531		$FE2B3F PC-R.
RAMM5	TESTALLE	4534		$FE2B4E PC-R.
RAMOK	TESTALLE	4537		$FE2B5B PC-R.
RAMT	TESTALLE	4454		$FE2A8A PC-R.
RAMT1	TESTALLE	4465		$FE2AA2 PC-R.
RAMT2	TESTALLE	4461		$FE2A9C PC-R.
RAMT3	TESTALLE	4467		$FE2AA6 PC-R.
RAMT4	TESTALLE	4472		$FE2AAE PC-R.
RAMT5	TESTALLE	4476		$FE2AB8 PC-R.
RAMTEND	TESTALLE	4451		$FE2A84 PC-R.
RAMTEND0	TESTALLE	4500		$FE2AEA PC-R.
RAMTEND1	TESTALLE	4505		$FE2AF4 PC-R.
RAMTEND2	TESTALLE	4512		$FE2B04 PC-R.
RAMTENDE	TESTALLE	4493		$FE2AD8 PC-R.
RAMTERR	TESTALLE	4415		$FE2A38 PC-R.
RAMTERR1	TESTALLE	4431		$FE2A5E PC-R.
RAMTERR2	TESTALLE	4443		$FE2A72 PC-R.

SYMBOL	BLOCK	ZEILE	LAENGE	WERT
RAMTERR3	TESTALLE	4439		$FE2A6A PC-R.
RAMTERR4	TESTALLE	4447		$FE2A7C PC-R.
RAMTEST	TESTALLE	4366		$FE29CE PC-R.
RDA		2622		$2
RDBUF		2640		@$517
RDC		2621		$3
READ		3045		$FE1D04 PC-R.
READ1		3056		$FE1D20 PC-R.
READ10		3111		$FE1D9C PC-R.
READ1RES		2511		$FE1864 PC-R.
READ2HX		1601		$FE0EC2 PC-R.
READ2RES		2504		$FE1850 PC-R.
READ3		3064		$FE1D36 PC-R.
READ31		3075		$FE1D4C PC-R.
READ4		3083		$FE1D5A PC-R.
READ41		3084		$FE1D5C PC-R.
READ4HX		1482		$FE0D7E PC-R.
READ5		3094		$FE1D6C PC-R.
READ7LOOP	READ7RES	2498		$FE1844 PC-R.
READ7RES	READ7RES	2493		$FE1832 PC-R.
READ8		3099		$FE1D78 PC-R.
READ9		3109		$FE1D9A PC-R.
READ91		3108		$FE1D98 PC-R.
READB		3007		$FE1C9A PC-R.
READB1		3008		$FE1C9C PC-R.
READDMA	READDMA	2537		$FE188E PC-R.
READDMAEND	READDMA	2551		$FE18BC PC-R.
READEND		1563		$FE0E5A PC-R.
READFDC		2524		$FE187C PC-R.
READHX		1467		$FE0D52 PC-R.
READHX0		1472		$FE0D62 PC-R.
READHX3		1478		$FE0D72 PC-R.
READHX9		1485		$FE0D84 PC-R.
READMORE		1593		$FE0EAA PC-R.
READS1		1574		$FE0E7E PC-R.
READS12		1582		$FE0E94 PC-R.
READS13		1590		$FE0EA6 PC-R.
READS2		1614		$FE0EDE PC-R.
READSEEKERROR	FLOPPYREAD	2428		$FE17AE PC-R.
READSERR		1630		$FE0F06 PC-R.
READTREE		1159		$FE0A70 PC-R.
REGFLAG		54	LONG	@$558
REGS		55	LONG	@$55C
RESTAB		2035		$FE1330 PC-R.
RELOST		2641		@$530
REMBLANK		380		$FE0302 PC-R.
RESRAM		2288	BYTE	$A(A6)
RESTORE	RESTORE	2375		$FE1724 PC-R.
RET		932		$FE0810 PC-R.
RET	GETPARAM	3670		$FE20B2 PC-R.
RETURN		3706		$FE20F0 PC-R.
RETURN2		4159		$FE250E PC-R.
REVT		2628		$70
REVTAW		2883		$FE1B98 PC-R.

SYMBOL	BLOCK	ZEILE	LAENGE	WERT
REVTAW1		2885		$FE1BA2 PC-R.
REWIND		3286		$FE1F20 PC-R.
REWIND1		3287		$FE1F24 PC-R.
RXINT1		1028		$FE0928 PC-R.
RXPA	TESTALLE	4825		A1
RXPB	TESTALLE	4827		A3
SAVE0		2751		$FE1A2E PC-R.
SAVE1		2759		$FE1A4A PC-R.
SAVE10		2836		$FE1B32 PC-R.
SAVE11		2771		$FE1A6C PC-R.
SAVE12		2779		$FE1A84 PC-R.
SAVE121		2785		$FE1A94 PC-R.
SAVE2		2798		$FE1ABE PC-R.
SAVE21		2799		$FE1AC4 PC-R.
SAVE3		2807		$FE1ADC PC-R.
SAVE4		2827		$FE1B1A PC-R.
SAVE41		2828		$FE1B1E PC-R.
SAVE9		2833		$FE1B2C PC-R.
SAVEMO1		1806		$FE10E2 PC-R.
SAVEMO2		1836		$FE1142 PC-R.
SAVEMO3		1831		$FE1130 PC-R.
SAVEMO4		1850		$FE116A PC-R.
SAVEMO5		1846		$FE115C PC-R.
SAVEMOCO		1793		$FE10B8 PC-R.
SAVEMOEN		1859		$FE118A PC-R.
SAVEMOSE		1802		$FE10D8 PC-R.
SAVESNIB		1906		$FE11F4 PC-R.
SAVESRE1		1878		$FE11BC PC-R.
SAVESRE2		1894		$FE11DE PC-R.
SAVESRE3		1883		$FE11C6 PC-R.
SAVESRE4		1892		$FE11DC PC-R.
SAVESREC		1866		$FE119C PC-R.
SAVESTL1		1918		$FE1210 PC-R.
SAVESTLE		1912		$FE1200 PC-R.
SCR0		4082		$FE2462 PC-R.
SCR1		4085		$FE246C PC-R.
SCROLL		4078		$FE2454 PC-R.
SEANEXT		1692		$FE0FB8 PC-R.
SEANEXT1		1698		$FE0FCC PC-R.
SEANEXTE		1702		$FE0FD8 PC-R.
SEEK	SEEK	2440		$FE17B8 PC-R.
SEEK1	SEEK	2448		$FE17D4 PC-R.
SENSEDRIVESTAT		2346		$FE16E8 PC-R.
SENSINTS		2363		$FE170E PC-R.
SERRTE3		50	LONG	@$54E
SERVACIA		1018		$FE08FC PC-R.
SERVI03		945		$FE0838 PC-R.
SERVI1		1061		$FE09B0 PC-R.
SERVI3		1042		$FE0966 PC-R.
SERVICJE		1062		$FE09B4 PC-R.
SERVICE20		2577		$FE18F8 PC-R.
SERVICE3		880		$FE07C4 PC-R.
SETVEKTORS		309		$FE01C2 PC-R.
SIDE0	FLOPPYREAD	2413		$FE176E PC-R.

SYMBOL	BLOCK	ZEILE	LAENGE	WERT
SKIPB		3146		$FE1DC6 PC-R.
SKIPB1		3151		$FE1DD6 PC-R.
SKIPB2		3157		$FE1DEC PC-R.
SKIPB4		3161		$FE1DFC PC-R.
SKIPF		3258		$FE1ED2 PC-R.
SKIPF0		3263		$FE1EE0 PC-R.
SKIPF1		3265		$FE1EEA PC-R.
SKIPF2		3269		$FE1EF4 PC-R.
SKIPF8		3273		$FE1F00 PC-R.
SKIPF9		3278		$FE1F12 PC-R.
SPALTE		3603	BYTE	$1(A0)
SSTP		56	LONG	@$598
STACKP		1256		$FE0856 PC-R.
STANDIO		133		$10001
STARTBOOT		2195		$FE15E8 PC-R.
STARTDOS		2230		$FE1654 PC-R.
STARTMESS	TESTALLE	5163		$FE33E4 PC-R.
STARTNEU		169		$FE0038 PC-R.
STATREG		1266		$FE0B62 PC-R.
STEP		388		$FE030E PC-R.
STEPFLG		47	WORD	@$544
STEPTIME		2259		$80
STOPT		2632		$F0
STRG		59	WORD	@$5A2
SURE		3303		$FE1F32 PC-R.
SUSYSPRUNGTAB	SUSYSPRUNGTAB	2150		$FE159C PC-R.
SYNC		2626		$16
SYSCONST		298	LONG	$FE01A2 PC-R.
T1	TESTALLE	4636		$FE2BF2 PC-R.
T2	TESTALLE	4643		$FE2C0C PC-R.
T3	TESTALLE	4648		$FE2C20 PC-R.
T4	TESTALLE	4653		$FE2C34 PC-R.
T5	TESTALLE	4658		$FE2C48 PC-R.
T6	TESTALLE	4663		$FE2C5C PC-R.
T7	TESTALLE	4668		$FE2C70 PC-R.
T8	TESTALLE	4673		$FE2C84 PC-R.
T9	TESTALLE	4679		$FE2C9E PC-R.
TA	TESTALLE	4688		$FE2CC2 PC-R.
TAB		3674	LONG	$FE20B4 PC-R.
TABELLE		1000	WORD	$FE08DC PC-R.
TAPEINI		2868		$FE1B70 PC-R.
TB	TESTALLE	4694		$FE2CD6 PC-R.
TBRP		2042		$FE1366 PC-R.
TC		513		$FE0468 PC-R.
TC	TESTALLE	4701		$FE2CF0 PC-R.
TD	TESTALLE	4706		$FE2D00 PC-R.
TDATA	TESTALLE	4735		$FE2D4A PC-R.
TDATA1	TESTALLE	4736		$FE2D4E PC-R.
TDATA2	TESTALLE	4744		$FE2D62 PC-R.
TDCOM		509		$FE045E PC-R.
TDEL		2046	LONG	$FE13A6 PC-R.
TERMTAB		69	LONG	@$5FA
TEST0OK		2599		$FE192C PC-R.
TESTALLE	TESTALLE	4312		$FE2978 PC-R.

SYMBOL	BLOCK	ZEILE	LAENGE	WERT	
TESTIN	SUSYSPRUNGTAB	2170		$FE15E2	PC-R.
TESTRES	TESTRES	2585		$FE1902	PC-R.
TESTST0		2595		$FE191C	PC-R.
TRACE		393		$FE0316	PC-R.
TRACE1		394		$FE031A	PC-R.
TRACEIN		400		$FE0324	PC-R.
TRACEIN2		418		$FE0370	PC-R.
TRACEIN4		416		$FE0368	PC-R.
TRACEVCT		124		@$24	
TRAP0VECTOR		126		@$80	
TRAP15HA		659		$FE05CE	PC-R.
TRAP1HA		351		$FE02C2	PC-R.
TRAP1VECTOR		127		@$84	
TRAPALL		1973		$FE12A2	PC-R.
TRAPERR		1970		$FE129C	PC-R.
TRAPIO		129		@$8C	
TRAPIO2		667		$FE05E4	PC-R.
TRAPIO3		671		$FE05F0	PC-R.
TRAPIO4		665		$FE05DE	PC-R.
TRAPIO5		669		$FE05EA	PC-R.
TRAPIOE		677		$FE0600	PC-R.
TRAPLON		1944		$FE1246	PC-R.
TREIBERRAM		2190		@$700	
TRES		2043		$FE1371	PC-R.
TRET	TESTALLE	4747		$FE2D68	PC-R.
TRYBOOT		2194		$FE15E8	PC-R.
TRYDOUBLED		2201		$FE15FC	PC-R.
TTA1	TESTALLE	4333		$FE29A4	PC-R.
TTA2	TESTALLE	4338		$FE29B0	PC-R.
TTA3	TESTALLE	4343		$FE29BC	PC-R.
TTA4	TESTALLE	4349		$FE29C8	PC-R.
TTARET	TESTALLE	4347		$FE29C6	PC-R.
TTRAPERR		2047		$FE13AA	PC-R.
TWHAT		2045		$FE139F	PC-R.
TXPA	TESTALLE	4824		A0	
TXPB	TESTALLE	4826		A2	
UGSTACK		132		$400	
UP2		3984		$FE2384	PC-R.
USERIN		67	WORD	@$5F4	
USEROUT		65	WORD	@$5EE	
USTACKP		1261		$FE085C	PC-R.
USTP		57	LONG	@$59C	
V24TEST	TESTALLE	4833		$FE2F36	PC-R.
VARIABLES		41	BYTE	@$4F8	
VIABASEMDCR		114		$FFFF8803	
VIAPBDAT		115		@$FFFF8801	
VIAPBDIR		116		@$FFFF8805	
VIAPPCR		117		@$FFFF8819	
VIDEOOUT		740		$FE065C	PC-R.
VIDEORAM2		104		@$78000	
VIDEORAM5		105		@$88000	
VIDEORAMN		102		@$38000	
VIDEORAMV		103		@$F18000	
VT1	TESTALLE	4842		$FE2F4C	PC-R.

SYMBOL	BLOCK	ZEILE	LAENGE	WERT
VT10	TESTALLE	4967		$FE305A PC-R.
VT11	TESTALLE	4973		$FE306E PC-R.
VT12	TESTALLE	4980		$FE307A PC-R.
VT13	TESTALLE	4981		$FE307C PC-R.
VT14	TESTALLE	4988		$FE3088 PC-R.
VT15	TESTALLE	4990		$FE308A PC-R.
VT16	TESTALLE	4998		$FE309E PC-R.
VT16A	TESTALLE	5019		$FE30E0 PC-R.
VT16B	TESTALLE	5029		$FE30FC PC-R.
VT16C	TESTALLE	5033		$FE3108 PC-R.
VT16D	TESTALLE	5040		$FE3126 PC-R.
VT16E	TESTALLE	5059		$FE3142 PC-R.
VT17	TESTALLE	5081		$FE3198 PC-R.
VT2	TESTALLE	4861		$FE2F86 PC-R.
VT3	TESTALLE	4867		$FE2F96 PC-R.
VT3A	TESTALLE	4853		$FE2F6E PC-R.
VT4	TESTALLE	4868		$FE2F9A PC-R.
VT5	TESTALLE	4903		$FE2FD6 PC-R.
VT5A	TESTALLE	4911		$FE2FE2 PC-R.
VT5B	TESTALLE	4919		$FE2FF4 PC-R.
VT6	TESTALLE	4923		$FE3000 PC-R.
VT6A	TESTALLE	4921		$FE2FFA PC-R.
VT7	TESTALLE	4930		$FE300E PC-R.
VT7A	TESTALLE	4934		$FE3016 PC-R.
VT7B	TESTALLE	4942		$FE3028 PC-R.
VT8	TESTALLE	4945		$FE3034 PC-R.
VT8A	TESTALLE	4944		$FE302E PC-R.
VT9	TESTALLE	4952		$FE3042 PC-R.
VTCTS	TESTALLE	5012		$FE30C2 PC-R.
VTERR	TESTALLE	5054		$FE314E PC-R.
VTERR0	TESTALLE	5068		$FE3176 PC-R.
VTERR1	TESTALLE	5069		$FE3178 PC-R.
VTERR2	TESTALLE	5078		$FE3190 PC-R.
VTF0	TESTALLE	5144		$FE331A PC-R.
VTF1	TESTALLE	5146		$FE3331 PC-R.
VTF2	TESTALLE	5148		$FE3345 PC-R.
VTF3	TESTALLE	5150		$FE3359 PC-R.
VTF4	TESTALLE	5152		$FE3373 PC-R.
VTF5	TESTALLE	5154		$FE338A PC-R.
VTF6	TESTALLE	5156		$FE339E PC-R.
VTF7	TESTALLE	5158		$FE33B2 PC-R.
VTF8	TESTALLE	5160		$FE33CC PC-R.
VTINT	TESTALLE	5085		$FE319C PC-R.
VTINT1	TESTALLE	5099		$FE31C0 PC-R.
VTM1	TESTALLE	5118		$FE31F4 PC-R.
VTM2	TESTALLE	5122		$FE3258 PC-R.
VTM3	TESTALLE	5130		$FE32DD PC-R.
VTM4	TESTALLE	5132		$FE32F3 PC-R.
VTMTAB	TESTALLE	5134	WORD	$FE3308 PC-R.
W120MS		2897		$FE1BBE PC-R.
W1500MS		2895		$FE1BB8 PC-R.
W250MS		2901		$FE1BCA PC-R.
W3SEC		2907		$FE1BDC PC-R.
W40MS		2903		$FE1BD0 PC-R.

SYMBOL	BLOCK	ZEILE	LAENGE	WERT
W500MS		2905		$FE1BD6 PC-R.
W999MS		2899		$FE1BC4 PC-R.
WAIT		2557		$FE18C6 PC-R.
WAITBUSY	WRITECOM	2470		$FE180C PC-R.
WAITD0		2029		$FE132A PC-R.
WAITDIO	WRITECOM	2475		$FE181C PC-R.
WAITI		2387		$FE174C PC-R.
WAITILOOP		2388		$FE1750 PC-R.
WAITMASTERRQ	WRITECOM	2472		$FE1812 PC-R.
WAITX	TESTALLE	4751		$FE2D6E PC-R.
WARMST		191		$FE0086 PC-R.
WCD		2619		$5
WCDT		2631		$00
WDA		2620		$4
WEN		2624		$0
WFCLK1		3022		$FE1CC2 PC-R.
WFCLK2		3030		$FE1CDE PC-R.
WFCLK3		3037		$FE1CF8 PC-R.
WFCLK4		3040		$FE1CFE PC-R.
WFORCLK		3020		$FE1CB6 PC-R.
WFORCLK0		3021		$FE1CBC PC-R.
WFWDT		2630		$90
WHAT		598		$FE0544 PC-R.
WHATF0		1495		$FE0D96 PC-R.
WHATF01		1505		$FE0DB4 PC-R.
WRBUF		2639		a$501
WRITB		2925		$FE1BF4 PC-R.
WRITB1		2931		$FE1C02 PC-R.
WRITB3		2934		$FE1C06 PC-R.
WRITB4		2939		$FE1C10 PC-R.
WRITB5		2944		$FE1C18 PC-R.
WRITB6		2947		$FE1C1C PC-R.
WRITB7		2952		$FE1C26 PC-R.
WRITB8		2955		$FE1C2E PC-R.
WRITE		2967		$FE1C34 PC-R.
WRITE1		2972		$FE1C46 PC-R.
WRITECOM	WRITECOM	2465		$FE17F6 PC-R.
WRPART1		2973		$FE1C48 PC-R.
WRPART2		2983		$FE1C62 PC-R.
WRPART3		2990		$FE1C6E PC-R.
WRPART31		2992		$FE1C72 PC-R.
WRPART32		2995		$FE1C7C PC-R.
XCOLD		160		$FE001C PC-R.
XGETAN		81	LONG	a$60A
XGETLI		82	LONG	a$60E
XGETSYSC		166		$FE0034 PC-R.
XINCH		155		$FE0008 PC-R.
XINITS		80	LONG	a$606
XINTINP		165	LONG	$FE0030 PC-R.
XIOFLAG		157	LONG	$FE0010 PC-R.
XLOAD		164		$FE002C PC-R.
XMLOOP		162		$FE0024 PC-R.
XMOVEO		84	LONG	a$616
XOUTCH		156		$FE000C PC-R.

SYMBOL	BLOCK	ZEILE	LAENGE	WERT
XOUTOB		83	LONG	@$612
XPCRLF		158		$FE0014 PC-R.
XPDATA		161		$FE0020 PC-R.
XSAVE		163		$FE0028 PC-R.
XWARM		159		$FE0018 PC-R.
ZEILE		3602	BYTE	$0(A0)
ZERODIVE		2001		$FE12F2 PC-R.

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